

# **MONETARY POLICY AND THE STATE OF THE ECONOMY**

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## **HEARING BEFORE THE COMMITTEE ON FINANCIAL SERVICES U.S. HOUSE OF REPRESENTATIVES ONE HUNDRED TENTH CONGRESS SECOND SESSION**

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JULY 16, 2008

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## **MONETARY POLICY AND THE STATE OF THE ECONOMY**

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**Wednesday, July 16, 2008**

**U.S. HOUSE OF REPRESENTATIVES,  
COMMITTEE ON FINANCIAL SERVICES,  
*Washington, D.C.***

The committee met, pursuant to notice, at 10:03 a.m., in room 2128, Rayburn House Office Building, Hon. Barney Frank [chairman of the committee] presiding.

Members present: Representatives Frank, Waters, Maloney, Gutierrez, Velazquez, Watt, Sherman, Capuano, McCarthy of New York, Baca, Miller of North Carolina, Scott, Cleaver, Moore of Wisconsin, Davis of Tennessee, Hodes, Ellison, Klein, Wilson, Perlmutter, Donnelly, Foster, Carson, Speier, Chidlers; Bachus, Pryce, Castle, Royce, Paul, Manzullo, Biggert, Shays, Miller of California, Capito, Hensarling, Garrett, Brown-Waite, Barrett, Neugebauer, Davis of Kentucky, McHenry, Campbell, Putnam, Bachmann, Roskam, Marchant, McCarthy of California, and Heller.

The CHAIRMAN. The hearing will come to order. This is a hearing pursuant to law on monetary policy and the state of the economy. It is one of two hearings we have every year according to statute on the state of the economy under the Humphrey-Hawkins Act.

Let me say preliminarily before we get into the opening statements that there was a good deal of interest in the recent proposal from the Bush Administration involving some standby financial authority for dealing with the situation in Fannie Mae and Freddie Mac. Obviously, Members are free to ask whatever they wish. I intend to focus here on the macroeconomy. We did, of course, have the Chairman before us last week on the Board of Regulatory Authorities. Members are free to ask, obviously, whatever they wish. I would note that the official subject is the macroeconomy, and that is what I intend to discuss. Members will use their time as they wish.

We will have four opening statements; two 5-minute statements by myself and the ranking member, and two 3-minute statements from the chairman and the ranking member of the subcommittee. I will begin my statement now, so we can start the clock.

I am sorry; kill the clock for a minute.

Let me also explain that on the Democratic side—I take from the ranking member the order in which questions are asked on their side—we have been following the procedure of going first in this hearing to members who did not get reached when we did the questioning in the first hearing this year. So we will begin with those

members who did not get a chance to ask questions during the first round.

With that, we will start the clock, and I will begin my statement.

I want to focus on the very difficult situation facing a great majority of Americans, people who work for other people for a living. Unemployment this year has become a serious problem. If you look at the numbers for the unemployment figures, if the second half of this year is not better economically than the first half, and I don't see any reasons to believe that it will be, although we obviously hope it will be, but if the numbers on unemployment in the second half are no better than the first half, we are on track to lose nearly 1 million jobs this year, which means 1 million fewer people on the official employment rolls than at the beginning of the year.

It is not only a case of jobs being lost. There is also a continued erosion in the real earnings per hour of working people. We had a debate in this country, in this committee, for several years about whether that was true or not. It is now conceded that even in those periods when we were generating wealth, and this continues to be a wealthy country with a great capacity to generate wealth through our free markets, the distribution was badly skewed. No one expects equality. Equality is not a good thing, and you can't have an economy that works if everything is equal. But too much inequality also has negative consequences.

Former Commerce Secretary Don Evans, a close friend of the President, commissioned a study which showed how the overwhelming majority of the wealth generated in the good times went to a handful of people.

Here is the report of the Federal Reserve, the Monetary Policy Report to the Congress, dated yesterday, when Chairman Bernanke testified first before the Senate. On page 20, the section begins: "Productivity and Labor Compensation. Gains in labor productivity have moved up significantly."

Let me go to page 21. People who wonder about the state of people's feelings are those who think that the American people are just whiners and that the troubles are all in their mind. For those who wonder why we have resistance to further globalization without changes in the basic policies of this country, this sentence should help them understand it. This is a direct quote from the Monetary Report on page 21: "Broad measures of hourly labor compensation have not kept pace with the rapid increases in both overall consumer prices and labor productivity, despite a labor market that, until recently, had been generally tight."

I want to emphasize, hourly labor compensation has not kept pace either with consumer prices or with productivity.

People who worry about inflation should understand from this that no part of the blame for inflation, if it comes, can be put on workers, because, as the Chairman has acknowledged previously, and as economists understand, wages which rise along with productivity at the same level are not inflationary.

We have increased productivity and compensation lagging productivity. Working Americans are producing more wealth for this country than they are being allowed to share, and that has been exacerbated by the fact that prices are going up. So the situation, according to the report of the Federal Reserve, is one in which

workers have increased their productivity, in cooperation with the employers, and have failed to be compensated either to keep up with the productivity or to keep up with prices.

The point to the business community is very clear. How can you understand this, how can you look at our being on track to lose nearly a million jobs this year, how can you note that workers are getting less compensation than they are earning for the economy and less than is needed to come up with prices, and wonder why you can't get trade bills through, wonder why there is resistance to outsourcing?

I believe that full participation in the global economy is a good thing, but if it continues to go forward on terms which give a disproportionate share of the benefits to a relatively small number, and the great majority are not simply even—even here, they are falling behind, despite increased productivity, then we have to stop and get our own house in order before we go further.

I now recognize the gentleman from Alabama.

Mr. BACHUS. I thank the chairman.

Chairman Frank, I am going to follow your lead and restrict my remarks to the real economy, which is the purpose of this hearing, and not some of the recent developments in the past week or two.

Chairman Bernanke, looking at the economy, we had an over-extension of credit. We had too easy of credit, it wasn't properly underwritten, and the risks were not taken into account. As a result of that, we have had, I think, massive debt accumulation in this country, and we are going through what is inevitable when people borrow more than they can repay.

I think a second factor, and it may be in your remarks or questions, you can address this, but a tremendous amount of leverage and risk-taking and other risky and speculative investment practices and a lot of fortunes were made on the way up, but there is pain on the way down. As I see it, it is not an easy thing to go through, but it is a part of a market cycle.

The third factor, and this is a factor that I think is the most important, is the high commodity prices, and particularly energy prices that have been a particular hardship on importing nations, and we are obviously an importing Nation. It has been a financial windfall to exporting countries.

I have been to Abu Dhabi and Dubai, and the fabulous wealth that has been created out of really a desert society there in the past 40 years is just almost beyond belief. I think T. Boone Pickens, he is running a commercial right now, and he calls this, I think rightly so, the largest transfer of wealth in the history of the world.

That, to me, and the effect it is having on Americans day-to-day, is our biggest problem. I believe it is the largest source of instability in our financial markets. I think that the consumers are stressed, they are paying high gas prices, high diesel prices, and they can't pay their other bills. They are even having trouble putting food on their tables.

Finally, while we require the American people to live within their budget, we had deficit spending here, and have for some time, and there is a tremendous lack, I think, in Washington of financial discipline. The Federal Government has more obligations than it

can fund today, but it continues to obligate itself, it continues to expand and create new programs, and it continues to assume responsibility for funding services that were traditionally in the province of local or State governments or families themselves.

Obviously, all of these problems, the problem of tremendous mushrooming of extension of credit and debt accumulation, of overleveraging and risk-taking, of high energy costs, high food costs, high gas prices, and then a Federal Government that spent beyond its means, obviously there is no single approach we can take to getting ourselves out of this.

I think the banks have repriced for risk. There has been a lot of—they have raised capital. I will state right here that I know there is a debate in this country on the overall financial stability of our financial system, but I, for one, think that we are well on our way to recovery in the financial system.

I think the present stock prices of our banks don't accurately reflect the value of those banks. I think the stock prices are too low. The banks are sound, they are solid. I think the stock prices, right now you may have—I think there is a real—it is just a confidence factor.

Anyway, we have had a retrenching and a correction, and I do worry about some attempts that we are doing to short-circuit the correction and the period of adjustment. I think long term they can deepen the damage.

But, in contrast, there is something that I think we should do, and we can do now, and that is to address high energy prices. High energy prices mean higher production and transportation costs. Those increases are passed on to the consumers, and we saw that this morning, causing inflationary pressures. Particularly hard hit are those Americans, a million-and-a-half Americans, whose adjustable-rate mortgages are adjusting. Those families are facing a double whammy.

To sum up, what I believe is needed now is a concerted bipartisan effort by Congress and the Administration to develop and implement a comprehensive energy and conservation initiative. It needs to be done now. It should have been last year or the year before that. I believe until we get a handle on our dependency on foreign oil, we are going to continue to have real severe problems.

Thank you.

The CHAIRMAN. The gentleman from Illinois.

Mr. GUTIERREZ. Thank you, Mr. Chairman.

Welcome back, Chairman Bernanke.

There is a lot of debate about whether or not we are in the midst of a recession, but to most people out there, it is really a moot question as they look at their bank accounts. And we all know IndyMac went under, and everybody else is really worried. There are a lot of calls at the office, should I check my savings account, my bank account, is it insured, do they have enough money? Then there is word that there might be another 90 banks. Some people say they are small. We don't know. Nobody is ever going to really tell us.

So, recession? When gasoline pops up to \$4.50 in Chicago, and your real earnings haven't increased, it seems like a recession to them.

Most folks say, well, I wasn't in the stock market. Most folks, because we have done so much good work at purchasing homes, have lost a lot of their net value. Their house isn't worth what it was worth last year. It seems like a recession to them.

GM is on the verge of bankruptcy. Let's hope it doesn't go under. I don't want to be a pessimist, but things are not good. Tens of thousands of retirees heard from GM yesterday, that it is so bad that their health care insurance is being canceled after 35 or 40 years of working at GM.

It is bad. I don't know if we are in a recession, but if you came out to my district and saw the foreclosure signs, literally the foreclosure signs everywhere. They say it is really worse on the east or the west coast. I think it is worse in those neighborhoods where people were finally getting a leg under and finally moving forward.

So I hope today, as we look at gas prices and food prices and what they really mean, and I know a lot of this is very familiar to you, I would like to know your thoughts on inflation in the current environment. With stagnant wages, we are not entering into a wage spiral, and inflation is running high when measured by personal consumption expenditures, and with gasoline and consumer energies even higher, inflation seems to be a real threat in the near term.

I understand the markets need to grow, and that means lower interest rates, but at the same time, specifically with the sharp increases in commodity prices, inflation has had to play a larger role in Federal Reserve decisionmaking.

So, Mr. Bernanke, in the past you have discussed inflation targets, and I would like to know if you think such targets might be appropriate in this environment.

I am also concerned about the weak dollar. We went to the Middle East on a congressional delegation to look into sovereign wealth funds, and it was suggested by some of these sovereign wealth managers, and I guess they would know since they have so much oil and the petrodollars, they say about 25 percent of it is due to the weakening of the dollar.

So I look forward—and I do want to close by saying thank you for allowing the GSEs access to the discount window. I was really happy to read and hear about the decisions you made in terms of stopping predatory lending. I specifically ask you for that as we move forward.

Thank you so much, Chairman Bernanke.

The CHAIRMAN. The gentleman from Texas.

Dr. PAUL. I ask unanimous consent to submit a written statement at this time.

The CHAIRMAN. Without objection, it is so ordered.

Dr. PAUL. Thank you, Mr. Chairman.

The CHAIRMAN. The Federal Reserve doesn't get to object.

Dr. PAUL. I think everybody recognizes today that our financial markets are in a big mess, and I have complained for many years about the Federal Reserve System. But I would have to say that Chairman Bernanke himself is not responsible for this mess. Not that I think he has the answers in this deeply flawed monetary system, but obviously the seeds of this mess have been planted

over a long period of time. It is more a reflection of the system rather than that of one individual.

It is amazing how panicky people have been getting, and how everybody is wringing their hands, and yet our government tells us, well, there is no recession, so things must be all right. A lot of people are very angry. Yet we know there is something seriously wrong, with all the mess that we have in the financial markets. And now we see this morning that inflation is roaring back, yet it is still way below what the private economists are saying about what inflation is really doing. But the consumer knows all about it.

It seems like around here, whether it is from Treasury or the Federal Reserve or even in the Congress, all we need now is to have a world-class regulator that is going to solve all our problems, and I think that is so simplistic. From my viewpoint, what we need is a world-class dollar, a dollar that is sound, not a dollar that continues to depreciate, and not a system where we perpetually just resort to inflation and deficit financing to bail out everybody. This is what we have been doing. It hasn't been just with this crisis, but an ongoing crisis. We have been able to pull ourselves out of these nosedives quite frequently. One of the worst with the dollar was in 1979. We patched it together.

I think the handwriting on the wall is there is a limit to how many times we can bail the dollar out, because conditions are so much worse today than they have ever been.

We talk a lot about predatory lending, but I see the predatory lending coming from the Federal Reserve. Interest at 1 percent, overnight rates, loaning to banks, encouraging the banks and investors to do the wrong things causes all the malinvestment. These conditions were predictable. They were predicted by the Austrian free market economists. It should surprise nobody, yet nobody resorts to looking to those individuals who are absolutely right about what was coming and what we should have done.

Even as early as 7 years ago, I introduced legislation that would have removed the line of credit to the Treasury, which was encouraging the moral hazard and the malinvestment. Here, it looks like now we are going to need \$300 billion of new appropriations.

So we need to look at the monetary system and its basic fundamental flaws that exist there, and then we might get to the bottom of these problems we are facing today.

The CHAIRMAN. Now, Mr. Chairman, I did want to join the chairman of the subcommittee in thanking you for the action you took on Monday, a very important set of steps with regard to the subprime. With that, let me welcome you again to your alternate office and invite you to proceed.

**STATEMENT OF THE HONORABLE BEN S. BERNANKE, CHAIRMAN, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM**

Mr. BERNANKE. Thank you, Chairman Frank, Ranking Member Bachus, and members of the committee. I am pleased to present the Federal Reserve's Monetary Report to the Congress.

The U.S. economy and financial system have confronted some significant challenges thus far in 2008. The contraction in housing

activity that began in 2006 and the associated deterioration in mortgage markets that became evident last year have led to sizable losses at financial institutions and a sharp tightening in overall credit conditions. The effects of the housing contraction and of the financial headwinds on spending and economic activity have been compounded by rapid increases in the price of energy and other commodities, which have zapped household purchasing power even as they have boosted inflation. Against this backdrop, economic activity has advanced at a sluggish pace during the first half of this year, while inflation has remained elevated.

Following a significant reduction in its policy rate over the second half of 2007, the Federal Open Market Committee eased policy considerably further through the spring to counter actual and expected weakness in economic growth and to mitigate downside risks to economic activity.

In addition, the Federal Reserve expanded some of the special liquidity programs that were established last year and implemented additional facilities to support the functioning of financial markets and foster financial stability.

Although these policy actions have had positive effects, the economy continues to face numerous difficulties, including ongoing strains in financial markets, declining house prices, a softening labor market, and rising prices of oil, food, and some other commodities.

Let me now turn to a more detailed discussion of some of these issues. Developments in financial markets and their implications to the macroeconomic outlook have been a focus of monetary policymakers over the past year. In the second half of 2007, the deteriorating performance of subprime mortgages in the United States triggered turbulence in domestic and international financial markets as investors became markedly less willing to bear credit risk of any type.

In the first quarter of 2008, reports of further losses and write-downs in financial institutions intensified investor concerns and resulted in further sharp reductions in market liquidity. By March, many dealers and other institutions, even those that had relied heavily on short-term secured financing, were facing much more stringent borrowing conditions.

In mid-March, a major investment bank, The Bear Stearns Companies, Inc., was pushed to the brink of failure after suddenly losing access to short-term financing markets. The Federal Reserve judged that a disorderly failure of Bear Stearns would pose a serious threat to overall financial stability and would most likely have significant adverse implications for the U.S. economy.

After discussions with the Securities and Exchange Commission, and in consultation with the Treasury, we invoked emergency authorities to provide special financing to facilitate the acquisition of Bear Stearns by JPMorgan Chase & Company. In addition, the Federal Reserve used emergency authorities to establish two new facilities to provide backstop liquidity to primary dealers, with the goals of stabilizing financial conditions and increasing the availability of credit to the broader economy.

We have also taken additional steps to address liquidity pressures in the banking system, including a further easing of the

terms for bank borrowing at the discount window and increases in the amount of credit made available to banks through the Term Auction Facility. The FOMC also authorized expansion of its currency swap arrangements with the European Central Bank and the Swiss National Bank to facilitate increased dollar lending by those institutions to banks in their jurisdictions.

These steps to address liquidity pressures, coupled with monetary easing, seem to have been helpful in mitigating some market strains. During the second quarter, credit spreads generally narrowed, liquidity pressures ebbed, and a number of new financial institutions raised new capital. However, as events in recent weeks have demonstrated, many financial markets and institutions remain under considerable stress in part because of the outlook for the economy and thus for credit quality, which remains uncertain.

In recent days, investors became particularly concerned about the financial condition of the Government-Sponsored Enterprises (GSEs) Fannie Mae and Freddie Mac. In view of this development, and given the importance of these firms to the mortgage market, the Treasury announced a legislative proposal to bolster their capital, access to liquidity, and regulatory oversight. As a supplemental to the Treasury's existing authority to lend to the GSEs, and as a bridge to the time when Congress decides how to proceed on these matters, the Board of Governors authorized the Federal Reserve Bank of New York to lend to Fannie Mae and Freddie Mac, should that become necessary. Any lending would be collateralized by U.S. Government and Federal agency securities.

In general, healthy economic growth depends on well-functioning financial markets. Consequently, helping the financial markets to return to more normal functioning will continue to be a top priority of the Federal Reserve.

I turn now to current economic developments and prospects. The economy has continued to expand, but at a subdued pace. In the labor market, private payroll employment has declined, falling at an average pace of 94,000 jobs per month through June. Employment in the construction and manufacturing sectors has been particularly hard hit, although employment declines in a number of other sectors are evident as well. The unemployment rate has risen and now stands at 5½ percent.

In the housing sector, activity continues to weaken. Although sales of existing homes have been about unchanged this year, sales of new homes have continued to fall, and inventories of unsold new homes remain high. In response, homebuilders continue to scale back the pace of housing starts. Home prices are falling, particularly in regions that experienced the largest price increases earlier this decade. The declines in home prices have contributed to the rising tide of foreclosures. By adding to the stock of vacant homes for sale, these foreclosures have in turn intensified the downward pressure on home prices in some areas.

Personal consumption expenditures have advanced at a modest pace so far this year, generally holding up somewhat better than might have been expected, given the array of forces weighing on households and attitudes. In particular, with the labor market softening and consumer price inflation elevated, real earnings have been stagnant so far this year. Declining values in equities have

taken their toll on household balance sheets, credit conditions have tightened, and indicators of consumer sentiment have fallen sharply. More positively, the fiscal stimulus package is providing some timely support to household incomes. Overall, consumption spending seems to be constrained over coming quarters.

In the business sector, real outlays for equipment and software were about flat in the first quarter of the year, and construction of nonresidential structures slowed appreciably. In the second quarter, the available data suggests that business fixed investment appears to have expanded moderately. Nevertheless, surveys of capital spending plans indicate that firms remain concerned about the economic and financial environment, including sharply rising cost of inputs and indications of tightening credit, and they are likely to be cautious with spending in the second half of this year. However, strong export growth continues to be a significant boon to many U.S. companies.

In conjunction with the June FOMC meeting, Board Members and Reserve Bank Presidents prepared economic projections covering the years 2008 through 2010. On balance, most FOMC participants expected that over the remainder of this year, output would expand at a pace appreciably below its trend rate, primarily because of continued weakness in housing markets, elevated energy prices, and tight credit conditions. Growth is projected to pick up gradually over the next 2 years as residential construction bottoms out and begins a slow recovery, and as credit conditions gradually improve. However, FOMC participants indicated that considerable uncertainty surrounded their outlook for economic growth and viewed the risks to their forecasts as skewed to the downside.

Inflation has remained high, running at nearly a 3½ percent annual rate over the first 5 months of this year as measured by the price index for personal consumption expenditures. And with gasoline and other consumer energy prices rising in recent weeks, inflation seems likely to move temporarily higher in the near term.

The elevated level of overall consumer inflation largely reflects a continued sharp run-up in the prices of many commodities, especially oil, but also certain crops and metals. The spot price of West Texas intermediate crude oil soared about 60 percent in 2007, and thus far this year has climbed an additional 50 percent or so. The price of oil currently stands at about 5 times its level toward the beginning of this decade. Our best judgment is that the surge has been driven predominantly by strong growth in underlying demand and tight supply conditions in global oil markets.

Over the past several years, the world economy has expanded its fastest pace in decades, leading to substantial increases in the demand for oil. Moreover, growth has been concentrated in developing and emerging market economies, where energy consumption has been further stimulated by rapid industrialization and by government subsidies that hold down the price of energy faced by ultimate users.

On the supply side, despite sharp increases in prices, the production of oil has risen only slightly in the past few years. Much of the subdued supply response reflects inadequate investment and

production shortfalls in politically volatile regions where large portions of the oil reserves are located.

Additionally, many governments have been tightening their control over oil resources, impeding foreign investment and hindering efforts to boost capacity and production.

Finally, sustainable rates of production in some of the more accessible oil fields, such as those in the North Sea, have been declining.

In view of these factors, estimates of long-term oil supplies have been marked down in recent months. Long-dated oil futures prices have risen, along with spot prices, suggesting that market participants also see oil supply conditions remaining tight for years to come.

The decline in the foreign exchange value of the dollar has also contributed somewhat to the increase in oil prices. The precise size of this effect is difficult to ascertain, as the causal relationships between oil prices and the dollar are complex and run in both directions. However, the price of oil has risen significantly in terms of all major currencies, suggesting that factors other than the dollar, notably shifts in the underlying global demand for and the supply of oil, have been the principal drivers of the increase in prices.

Another concern that has been raised is that financial speculation has added markedly to upward pressures on oil prices. Certainly, investor interest in oil and other commodities has increased substantially of late. However, if financial speculation were pushing above the levels consistent with the fundamentals of supply and demand, we would expect inventories of crude oil and petroleum products to increase as supply rose and demand fell. But, in fact, available data on oil inventories show notable declines over the past year.

This is not to say that useful steps could not be taken to improve the transparency and functioning of futures markets, only that such steps are unlikely to substantially affect the prices of oil or other commodities in the longer term.

Although the inflationary effect of rising oil and agricultural commodity prices is evident in the retail prices of energy and food, the extent to which the high prices of oil and other raw materials have been passed through to the prices of nonenergy, nonfood finished goods and services seems thus far to have been limited. But with businesses facing persistently higher input prices, they may attempt to pass through such costs into final goods and services more aggressively than they have so far.

Moreover, as the foreign exchange value of the dollar has declined, rises in import prices have been greater upward pressure on business costs and consumer prices. In their economic projections for the June FOMC meeting, monetary policymakers marked-up their forecast for inflation during 2008 as a whole. FOMC participants continue to expect inflation to moderate in 2009 and 2010, as slower global growth leads to a cooling of commodity markets, as pressures on resource utilization decline, and as longer-term inflation expectations remain reasonably well-anchored.

However, in light of the persistent escalation of commodity prices in recent quarters, FOMC participants viewed the inflation outlook as unusually uncertain and cited the possibility that commodity

prices will continue to rise as an important risk to the inflation forecast.

Moreover, the currently high levels of inflation, if sustained, might lead the public to revise up its expectations for longer-term inflation. If that were to occur, and those revised expectations were to become embedded in the domestic wage and price-setting process, we would see an unwelcome rise in actual inflation over the longer term.

A critical responsibility of monetary policymakers is to prevent that process from taking hold. At present, accurately assessing and appropriately balancing the risks to the outlook for growth and inflation is a significant challenge for monetary policymakers. The possibility of higher energy prices, tighter credit conditions, and a still deeper contraction in housing markets all represent significant downside risks to the outlook for growth. At the same time, upside risks to the inflation outlook have intensified lately as the rising prices of energy and some other commodities have led to a sharp pickup in inflation, and some measures of inflation expectations have moved higher.

Given the high degree of uncertainty, monetary policymakers will need to carefully assess incoming information bearing on the outlook for both inflation and growth. In light of the increase in upside inflation risk, we must be particularly alert to any indications, such as an erosion of longer-term expectations, that the inflationary impulses are becoming embedded in the domestic wage and price-setting process.

I would like to conclude my remarks by providing a brief update on some of the Federal Reserve's actions in the area of consumer protection. At the time of our report last February, I described the Board's proposal to adopt comprehensive new regulations to prohibit unfair or deceptive practices in the mortgage market, using our authority under the Home Ownership and Equity Protection Act of 1994.

After reviewing the more than 4,500 comment letters we received under the proposed rules, the Board approved the final rules on Monday. The new rules apply to all types of mortgage lenders and will establish lending standards aimed at curbing abuses, while preserving subprime lending and sustainable homeownership.

The final rules prohibit lenders from making higher-priced loans without due regard for consumers' ability to make the scheduled payments, and require lenders to verify the income and assets on which they rely when making the credit decision. Also, for higher-priced loans lenders now will be required to establish escrow accounts so that property taxes and insurance costs will be included in consumers' regularly monthly payments.

The final rules also prohibit prepayment penalty for higher-priced loans in cases in which the consumer's payment can increase during the first few years and restrict prepayment penalties or other higher-priced loans. Other measures address coercion of appraisers, servicer practices, and other issues. We believe the new rules will help to restore confidence in the mortgage market.

In May, working jointly with the Office of Thrift Supervision and the National Credit Union Administration, the Board issued proposed rules under the Federal Trade Commission Act to address

unfair or deceptive practices for credit card accounts and overdraft protection plans. Credit cards provide a convenient source of credit for many consumers, but the terms of credit cards loans have become more complex, which has reduced transparency.

Our consumer testing has persuaded us that disclosures alone cannot solve this problem. Thus, the Board's proposed rules would require card issuers to alter their practices in ways that will allow consumers to better understand how their own decisions and actions will affect their costs.

Card issuers will be prohibited from increasing interest rates retroactively to cover prior purchases except under very limited circumstances. For accounts having multiple interest rates, when consumers seek to pay down their balance by paying more than the minimum, card issuers will be prohibited from maximizing interest charges by applying excess payments to the lowest rate balance first.

The proposed rules dealing with bank overdraft services seek to give consumers greater control by ensuring that they have ample opportunity to opt out of automatic payments of overdrafts. The Board has already received more than 20,000 comment letters in response to these proposed rules.

Thank you. I have would be very pleased to take your questions.

The CHAIRMAN. Thank you.

[The prepared statement of Chairman Bernanke can be found on page 53 of the appendix.]

The CHAIRMAN. We will put the clock back on.

I want to repeat again my appreciation of the very thoughtful steps you are taking with regard to consumer protection. They haven't done everything we would do, but they go very far in that direction. I think they are very important. They don't totally obviate the need for legislation, but I did want to acknowledge that. I have to say if the Federal Reserve Board, before you became the Chair, had promulgated the rules that you promulgated on Monday, I do not think we would be in this dire situation we are in now.

Now, on the macroeconomy, on the job situation, and you note this in the report, the total report of jobs lost for the first 6 months is well over 400,000; 438,000, but you also note private sector job loss is 564,000. In other words, the public sector has mitigated job loss this year, and that is very relevant because one of the things that we will be considering, and I think conditions clearly call for, is a second stimulus. In fact, I think the argument for a stimulus is somewhat reinforced by your presentation because we have depended a great deal on monetary easing to help the economy, but whatever people think, it does seem to be clear we have reached a limit on monetary easing, at least according to what the Federal Reserve Board is willing to do. I believe further attention to a very lagging economy is necessary, and it is going to have to come on the fiscal side.

One of the arguments that I think is supported by these numbers is that we should be giving aid to State and local governments. Aid to State and local governments has a twofold benefit. It improves the quality of life. They provide police services and fire services,

education, sanitation, and quality-of-life improvements. They also are, as the numbers show, a significant source of employment.

Now, the problem is that the subprime crisis has eroded the ability of State and local government to carry out that function. Property taxes in many parts of this country have been impinged by the foreclosure process and by the drop in house prices.

So there are several arguments that combine to say that aid to municipalities and States is very important. We believe aid to help them buy up foreclosed property is an important part of that. But I think the numbers clearly show that.

I want to get to the whole question of the constraints on monetary policy. You say here that you have this dilemma, and you do, where there are both inflationary fears and still some downside risks to the economy. Without reference to the current situation, I think an important point comes out of this conversation. There is an argument for monetary policy increasing restraint, both to deal with inflation and to deal with the drop in the dollar, which contributes directly to energy prices.

I should note that at the request of the ranking members of the full committee and the subcommittee, we are scheduling a hearing to talk about the relationship of the low currency to oil prices and energy prices. That hearing is going to go forward in the last week that we are here.

But here is the problem: Your European counterparts have been able to be much more rigorous in raising interest rates. They, in fact, have a different statute. You have a dual mandate, which is very important, to worry about unemployment and inflation. They are mandated to do inflation. Western Europe is not necessarily less socially conscious than we are. I don't expect extensive comments from you, but I think here is the problem.

As you contemplate the possible need for raising interest rates to slow down the whole economy, you face a situation which the social consequences of that will be more negative than they would be in Europe; that is, the existence of better social safety nets in Europe, I think, gives monetary policy more political and social freedom than it has in the United States.

If you raise rates and slow down the economy, we have people who are going to lose health care. That doesn't happen in most European countries. There is a better provision of alternative income supports.

So one of the things I think we should understand is the relative insufficiency of our social safety net vis-a-vis what you have in Western Europe constrains monetary policy unduly. No one wants to see people thrown out of work. There are times when an increase in interest rates is necessary from the standpoint of the currency, and the gap between the European interest rates and our rates have contributed to a deterioration of the currency, which contributes to the energy problem.

So one of the things I recommend, and I have deliberately not asked you to comment because it goes beyond your mandate, I just want to note that to the extent that we improve the social safety net in this country, which is important on its own, I think we also give more flexibility to monetary policy, because the Federal Reserve would then be freer in times when it felt it was necessary for

other reasons to slow down the economy in the knowledge that this would not have, as it has today, a disproportionately negative effect on a lot of the people who are more vulnerable economically.

The gentleman from Alabama.

Mr. BACHUS. Thank you.

Chairman Bernanke, you talked about the significant increase in the CPI this morning, and the challenge that high energy prices present to the Fed and to our economy. Would you agree that the failure of this country to develop a comprehensive and sustainable energy initiative to reduce our dependency on foreign sources of oil represents a major threat to our economy?

Mr. BERNANKE. I do think it is very important for us—and I agree with you, Congressman, that it would have been better to have addressed this some time ago. I think it is very important for us to have an energy strategy, and that would have multiple dimensions: government support for research and development; clarification of regulatory policy; and, of course, letting the market respond to these prices. The only silver lining to these high prices is that they do induce lots of incentives to conserve, incentives to provide alternatives, and incentives to find and develop other oil sources.

So I agree with you absolutely that a more aggressive energy policy could be useful, and maybe even in the shorter term than one might guess, because these future markets are very forward-looking, and to the extent that there is a sense that the United States and other industrial countries are aggressively tackling their energy problems, it could sort of lessen concern about the long-term supply and demand balance in oil.

Mr. BACHUS. Representative Paul mentioned the weak dollar. Obviously, it is helping us with our exports, and it is moving some consumption inward. Obviously, our constituents are being terribly stressed by the high energy costs. I believe one factor may be the weak dollar. What is your policy regarding exchange rate intervention?

Mr. BERNANKE. Well, our principal policy toward the dollar is to have a strong economy. The Federal Reserve is mandated to provide strong growth and price stability. My belief is that if we work effectively to achieve that objective, the dollar strength in the medium term will reflect that healthy underlying economy.

Market intervention is a policy that has been undertaken a few times. I think it is something that should be done only rarely, but there may be conditions where markets are disorderly where some temporary action might be justified.

I think the dollar in the long term depends really on the fundamentals, and it is up to us to get the fundamentals right.

Mr. BACHUS. We talk about Bear Stearns and about the GSEs, about systemic risk because of large financial institutions. Is there a downside to the belief that I think is taking hold in the marketplace that the Federal Reserve and the Treasury will be lenders of last resort for the entire financial system? Don't we run the risk of a moral hazard? And when we do that, what do we do about where private investors participate in the profits? It seems that we are socializing the losses, or the public is assuming those losses.

Could you comment on those two things?

Mr. BERNANKE. Certainly.

The recent financial crisis, which has been quite severe, as you know, has revealed a number of weak points in our economy, in our financial system, and they have required attention because we need to have a stable, well-working financial system in order for the economy to recover. In the longer term, I agree that market discipline is the best source of strength in the financial system. We need to take action to make sure that moral hazard doesn't induce excessive risk-taking.

I spoke on this subject last week in a speech, and I indicated three directions forward that we could take to make sure that moral hazard is constrained in the future. The first is, now that the investment banks have received some support, in particular they have received access to, at least temporarily, to the discount window, I believe that we need to have legislated consolidated supervisory oversight over those firms that would ensure that they have adequate capital, adequate liquidity, and adequate risk management so they would not be taking advantage of any presumed backstop that they might otherwise see.

Secondly, I talked about the need to strengthen our financial infrastructure. Part of the reason that it was a big concern to us when Bear Stearns came to the brink of failure was that we were concerned that there were various markets where the failure of a major counterparty would have created enormous strains on the financial system.

One way to address the problem, and I discussed that at some length in my speech and I would be happy to talk more about it, is to make sure that the financial infrastructure, the systems through which lending and borrowing takes place, as well as the risk management of the lenders is strengthened to the point that the system could better withstand a failure, and therefore there would be less expectation of support in that situation.

Finally, I think the issues we have approached like the investment banks, these circumstances were not contemplated in other areas like deposit-insured banks. There is a procedure, a set of rules, prompt corrective action, systemic risk, those sorts of things which tell the regulators how Congress wants them to proceed and create clarity in the market about under what circumstances assistance would be forthcoming.

As Secretary Paulson has also indicated, I think we ought to be looking at clarifying the congressional expectations for how we would resolve—were the situation to arrive again, how to resolve such a problem.

The CHAIRMAN. The gentleman from Massachusetts.

Mr. CAPUANO. Chairman Bernanke, I have been listening to the GSE issue, and some people think this is nothing more than a crisis of confidence; maybe we should not do anything and let it wait. It amazes to me to hear this when I have an oil crisis, a food crisis, a Consumer Price Index going up through the roof, job losses all over the place, a trade deficit, a budget deficit going through the roof, corporate losses all across-the-board, and the stock market shaky every single day.

I would argue very clearly that this is a little more than a crisis of confidence; I think we have a crisis of leadership. When I say

that, I want to except you from that position. I say that because of the actions you have taken. They have been dramatic, bold, and courageous. That doesn't mean I agree with every little detail; I don't want to pretend that. But as far as I am concerned, you have been the leader in this Congress in proving that taking bold action, sometimes action that is a little bit on the edge, helps the economy. It is something that is necessary.

I think you are following in the footsteps of some people who really saved this country from disaster in the 1930's. People tend to forget this. In the 1930's, there was no one action, no one silver bullet that pulled us out of the Depression. It was a series of actions, over a decade. Many of those actions were to correct prior actions that maybe they made a mistake on, maybe they acted too quickly and had to adjust it.

I don't see that there is anything we can do, unless anyone has a single action that this Congress and this country should take. I think we need more action, and that includes Congress as well. I think we are going to try to do something in the next week or so. We need it from the regulators. I personally think we need more action from the SEC. I think we need faster action by everybody. I think we need more dramatic action by everybody. And I think we need more coordinated action by everybody. Right now, I think we have too many people running around on their own.

All that being said, again, I want to thank you for what you have done thus far and to thank you for your bold and courageous moves, as I see it, most recently in the predatory lending area. I would just like to hear your opinion in general, not about the specific proposals we have. I guess I can't escape them right now when the GSE proposal is floating around in all its different iterations.

In general, in the crisis that we are in, do you believe that government—that includes Congress, regulators, and everybody across-the-board—but that government should be acting relatively quickly, or do you think that we should simply sit back and say it is a confidence problem and people just need to get over it? Because, honestly, especially in the last day or so, I have been shocked at the number of people who have pretty much said that.

I understand people differ as to what we should do. That is fair. That is what this is all about. But to imply or to state that no action is necessary, to me, is completely wrong, and I would just like to hear your opinion on that issue.

Mr. BERNANKE. Well, you want to take the right actions.

Let me say a word about GSEs. The GSEs are adequately capitalized. They are in no danger of failing. However, the weakness in market confidence is having real effects as their stock prices fall. It is difficult for them to raise capital. If their debt spreads widen, it will increase the borrowing costs.

As I said yesterday, I think the housing market is really the central element of this crisis, and anything we can do to strengthen the housing market or to strengthen mortgage finance would be beneficial. Therefore, I do think this is one area where Congress needs to think hard about how to restore confidence in the GSEs to make sure that they can carry out the function of supporting the mortgage market, which, right now, except for the FHA-Ginnie Mae combination, they are the entire securitization market for mort-

gages. I think that is an area particularly where action is needed and justified.

Mr. CAPUANO. With that, I yield back the rest of my time because that was the answer I wanted.

The CHAIRMAN. The gentleman from Texas, who may not be quite so lucky in getting the answer that he wants.

Dr. PAUL. Thank you, Mr. Chairman.

I want to address the subject of the inflation being actually a tax. Today, most of us who go home and talk to our constituents hear a major complaint, and that is the rising cost of living, especially the cost of gasoline, medical care, food, and education. Most economists from all fields, whether they are monetarists or Keynesians, they generally recognize that inflation is a monetary phenomenon. But it is interesting that once we get rising prices, very few people talk about the real source and the cause of the inflation, and they go to saying, well, it's the oil companies. They charge too much. That is inflation. Labor makes too much money, and it is a labor problem. Others just say, well, it's just pure speculation, if we didn't have the speculators, we wouldn't have the inflation.

Yet, most people conclude not that we have too much money, but that we don't have enough. If we only had more money, we could pay all these bills, which I think is absolutely the wrong conclusion. What we need is more value in the money. In terms of gold and other commodities, prices aren't really going up. Sometimes they actually even go down. In terms of paper money worldwide, whether the euro or the dollar, the prices are going up.

But I maintain really that inflation is a tax. If the Federal Reserve and you as Chairman have this authority to increase the money supply arbitrarily, you are probably the biggest taxer in the country. You are a bigger taxer than the Congress, because they are talking now about a bailout package of \$300 billion, and we will have to raise the national debt to accommodate to take care of the housing crisis. But you as the Federal Reserve Chairman and the Federal Reserve Board and the system create hundreds of billions of dollars without even the appropriations process. Then this money gets circulated, and some people benefit—the people who get to use it first benefit, and the people who get to use it last suffer the consequence of the higher prices.

So every time people go and complain about these higher prices, they should say to themselves, I am paying a tax. Because whether you are monetizing debt or whatever or catching up for buying up securities, we have had a free ride for all these years. We have been able to export our inflation. We have the Chinese buying up our securities. We haven't had to monetize it. But now it is coming home, and you have to buy these things to prop them up.

So I maintain that inflation, as the increase in the supply of money for various reasons is a tax, it is an unfair tax, it is a regressive tax, it hurts the poor, it hurts the retired people more because labor never goes up and keeps up with inflation. We never keep up with the need for retired individuals to keep up with the cost of living.

So I would like you to comment on this. Is this completely off base, or is there something really to this? Every time we see the cost of living going up, we indirectly are paying a tax.

Mr. BERNANKE. Congressman, I couldn't agree with you more that inflation is a tax and that inflation is currently too high, and it is a top priority of the Federal Reserve to run a policy that is going to bring inflation to an acceptable level consistent with price stability as we go forward.

I would make one distinction, which is that what the Federal Reserve can control is the increase in prices on the average, over the overall basket of consumer goods and services. The enormous jumps in oil prices and other commodity prices are to some extent at least due to real factors out of the control of the Federal Reserve. The Federal Reserve cannot create another barrel of oil. It is the global supply and demand conditions which are affecting those particulars things to the most significant extent, but to the extent that the Fed does have influence on the overall inflation rate, you are absolutely right that it is very important to maintain price stability, and I take that very seriously.

Dr. PAUL. But if the oil prices were going up for another reason other than monetary reasons, other prices would have to come down because there would be a limit in the money supply. I think—and the prices are going up today, like I indicated in my opening statement, not necessarily because of the monetary policy of the last year but maybe for the last 15 or 20 years and the fact that we were able to export, so to speak, our inflation. Now it is coming home. Those people who have been holding these dollars are not wanting to buy them as readily. Fortunately, foreign central banks are still not dumping them but even the other central banks might not be as cooperative.

So I still see tremendous pressure. I don't see any signs that you are able to do very much because all we hear about is more inflation. You know, it is not so much that they are too big to fail. It just means that everybody needs to be propped up. Congress participates in it. And all the pressure is put on the dollar. It is a dollar bubble. And I think what we are seeing is the unraveling of a dollar bubble that had been building for more than 35 years.

The CHAIRMAN. The gentlewoman from New York.

Mrs. McCARTHY. Thank you. And again, I thank you for the work that you have been doing in the last couple of weeks. I imagine it has been very stressful. I want to just ask a couple of questions and see how prepared we are.

When I think about the small community banks, the regional small banks, they are going under the same crunches as our, you know, what we are concerned about as far as the larger banks, Wall Street. And even my retirees or those of us who are thinking of retiring in the next 5 to 10 years who have put money away into our IRA, I don't think a lot of people realize that it is only back to \$250,000. Is that going to put a lack of confidence in those who are putting money into the IRA? Because this is a country that does not save, and we have been trying to encourage people to save for their retirement. So those who put money into the IRA are now all of a sudden finding a lot of that money is gone again. Is there anything that Congress should be doing for the future? And what tools do you have to help the small regional banks that don't have the ability to go to the Fed for money to help make loans for those who can actually buy homes to get the housing market to go?

Mr. BERNANKE. Well, to the extent that your constituents have part of their IRA in the form of deposits, you know, they should understand what the limits are of the FDIC protection. Of course, one strategy if they have any concerns whatsoever would be to break up their money across banks or in different accounts and so on. There are obviously ways to get that protection, if that is what you are concerned about. And you know, I have complete confidence in the FDIC, as we all should, in that the deposits that are insured by the FDIC are completely safe and there is not even any break in time between if there were a problem, when you would be able to access your money.

So I think we all need to reassure the public that the FDIC is protecting deposits and that there is no need to be concerned about those deposits.

With respect to borrowing, all banks can borrow from the discount window, including small banks. Normally they don't as much. They tend to be well-capitalized and strong and they sometimes come to the window. But if they want to, they certainly are free to do so.

Mrs. McCARTHY. So the school of banks do have the opportunity to go to the discount window?

Mr. BERNANKE. Yes, they do.

Mrs. McCARTHY. Okay. I didn't actually know that. So I thank you for that information. Thank you very much. I yield back.

The CHAIRMAN. The gentleman from Illinois.

Mr. MANZULLO. Thank you, Mr. Chairman. Chairman Bernanke, earlier this week you took an action to crack down on a range of shady lending practices that have hurt the Nation's riskiest subprime borrowers and also have caused a tremendous amount of economic distress in this country. Among other things, the Fed issued regulations that would prohibit lenders from lending without considering the borrower's ability to repay and also would require creditors to verify their income and assets at the time of the borrowing. These are pretty basic.

Although hindsight is a 20/20 issue, and it is easy to sit here and say the Fed should have done this a long time ago, the evidence of this housing bubble has been going on for some time. And my question is, what took the Fed so long to act? And then the regulation you are coming out with is not going to be effective until October 1st of next year. Those are the issues just involving in the subprime borrowers. As to the regular borrowers, you came up with another landmark regulation that says, whenever a borrower gives a check to the bank that the bank has to credit it that day to the borrower's account. I mean, this shows knowledge of some very basic problems that have been wrong in the housing industry. But what took the Fed so long to act? And why wait 15 months before the regulations go into effect?

Mr. BERNANKE. Well, the regulatory process itself imposes certain time constraints. We obviously have to make sure the rules are consistent with existing law, including State as well as Federal law, that they take make sense economically, and so on. It does take some time to develop these proposals. They are quite elaborate.

Mr. MANZULLO. Sir, these are not elaborate proposals. These are very basic statements that say that nobody can take out a loan on a house unless he can afford to pay it. What is so elaborate about that statement?

Mr. BERNANKE. It raises issues according to what kinds of liabilities might be associated with that. Are there circumstances in which—say we have a long-time relationship between a bank and a customer where you don't go through the paperwork, those kinds of questions are still there.

And I was just going to add that under any kind of circumstance, we have to have a comment period to get input from the public. We have to revise our regulations.

Mr. MANZULLO. But you didn't start until December.

Mr. BERNANKE. So there are two questions. What is the length of the regulatory process, which is basically what we have to do to follow congressional—

Mr. MANZULLO. The question is, why did you take so long? You didn't do anything until December of last year.

Mr. BERNANKE. I described in my testimony here in July that we were going to do a top-to-bottom review of all these issues and we were going to act as quickly and as effectively as possible. We began that process and we have supplemented it, as you know, with considerable work on the credit card side. We have worked also in—

Mr. MANZULLO. Chairman Bernanke, a lot of people in this country are losing their homes. The Fed has the responsibility and the authority. You could have moved a long time ago and stopped a lot of this. I mean why does it take months, if not years, to have a very simple statement that you can't buy this house unless you can afford to make the mortgage? These regulations are not that revealing. You talk about—you need a top-to-bottom review for something this simple? This is inexcusable on the part of the Fed. Notice that I said on the part of the Fed, not you.

Mr. BERNANKE. Well, at the current moment, as we all know, the subprime market is pretty moribund, and so these rules are important but they are not having much impact on the market. What we hope to do is have rules in place so that when the market comes back, as it some day will, that the lending will be done in a way that is prudent and also supportive of homeownership among people with a more modest means. That is our intention, and we have followed the regulatory principles in order to do that.

Mr. MANZULLO. And then with regard to regular loans, you have proof, do you not, that homeowners are making payments to lending institutions and the lending institutions are holding on to the checks while the interest grows on the loan and waiting days before applying that money to the principal balance of the mortgage, isn't that correct?

Mr. BERNANKE. We have addressed in our regulations some issues about servicers and how quickly they have to apply the money to make sure that it is fair and transparent.

Mr. MANZULLO. It simply says—

The CHAIRMAN. The gentleman can't ask questions after the 5-minute rule. We have a full, full rostrum.

The gentlewoman from New York, I ask you to give me 15 seconds. Chairman Bernanke, quickly, when did you become Chairman of the Federal Reserve?

Mr. BERNANKE. In the beginning of 2006.

The CHAIRMAN. And when did you start working on these regulations that were just being discussed?

Mr. BERNANKE. In 2007.

The CHAIRMAN. And when did Congress give the Fed the authority to do it?

Mr. BERNANKE. 1994.

The CHAIRMAN. 1994. I don't think the delay is fairly laid at your doorstep given those numbers. The gentlewoman from New York.

Ms. VELAZQUEZ. Chairman Bernanke, thank you for being here. Since June of 2006, the Federal Reserve has acted consistently with a series of aggressive cuts to the Federal funds rate. However, with the rate now at 2 percent and with rising indicators of inflationary risk, what can the Fed do to support the U.S. economy and force the further decline in the markets?

Mr. BERNANKE. Congresswoman, as I indicated in my testimony, we at this point are balancing various risks to the economy. And as we go forward, my colleagues and I are going to have to, you know, see how the data come in and how the outlook is changing and try to find the policy that best balances those risks and best achieves our mandate of sustainable growth and price stability. So I don't know how to answer beyond that, other than to say that we are going to be responsive to conditions as they evolve. I noted today the importance of not letting inflation from commodities enter into a broader and more persistent and more pernicious inflation. That is certainly an important priority. But in general, we are going to have to just keep evaluating the new information and see how it affects the outlook.

Monetary policy works with a lag. We can't look out the window and do something that will affect the economy today. So the best we can do is try to make forecasts and try to adjust our policy in a way that brings the forecast towards the desired outcome.

Ms. VELAZQUEZ. Well, Mr. Chairman, I understand all the steps and actions taken by the Fed. But it seems to me that the lending tools are proving to be ineffective at this point. Doesn't this prove that the current economic conditions have moved beyond a liquidity crisis that can be mitigated through Federal lending and is now proven to be a capital crunch?

Mr. BERNANKE. Well, as the earlier questioner mentioned, dealing with these kinds of problems is multi-dimensional. Monetary policy is one element. Lending is one element. Regulatory policy, both initiated by the regulators and by Congress, is another element. I think we need to address the Fannie Mae/Freddie Mac situation to try to strengthen the mortgage markets. There are many other steps. We have done the fiscal stimulus package.

So I absolutely agree that there is no single solution. If there were, of course we would have used it by now. What we need to do is have a sensible, coordinated, and proactive approach that is going to allow us to get through this difficult period and return to the strong underlying growth of this economy, in which I have great confidence.

Ms. VELAZQUEZ. Okay. Many believe that the losses from the housing market could spill over into consumer and business credit, indicating that the worst may be yet to come. What is your take on that?

Mr. BERNANKE. Well, there has been a problem in that many banks that have suffered losses from mortgage credit and therefore have had their capital reduced, they either have to raise more capital or if they don't do that, they have to shrink their balance sheets or at least be reluctant to make new loans. So there is some risk of that, that it would spill over to other kinds of credit. In fact we have seen credit tightening in a number of dimensions. Of course there is another factor as well, which is as the economy slows it is natural for banks to be more cautious in their lending because with a slower economy, credit risks tend to rise.

So that is a very important issue. We want to be sure that banks are sound and that they have enough capital so that they cannot just be safe and sound, which of course is critical, but beyond that so that they can expand credit in a safe and sound way to promote the recovery and strength of the economy.

Ms. VELAZQUEZ. Mr. Chairman, every day we hear stories about small businesses being impacted by the credit crunch. And the Fed used to provide the Survey of Small Business Finances. And you have been critical to many policy decisions both at the Federal Reserve and here in Congress. If the survey is discontinued, what alternative sources of information will your agency use to make its report to Congress on the availability of credit to small businesses?

Mr. BERNANKE. Yes, we did cancel that survey for budgetary reasons. But we did so also in the understanding that we could get almost all the necessary information through other means. And we in fact discussed this with Congress. We discussed this with various groups of interest in this area. The most important alternative is the Survey of Consumer Finances, which is a Fed-managed product which surveys families periodically on all aspects of their balance sheets and income. That is an excellent survey instrument for asking small business owners what their situation is, do they have access to credit, what is their net worth, and so on.

So what we have tried to do—and I believe this will be successful—is to integrate the key elements of that small business survey into the Survey of Consumer Finances that will allow us to recover most of the information. And then we have a variety of other sources of information that I think will make it possible for us to get a good picture of small business.

Ms. VELAZQUEZ. Thank you. Thank you, Mr. Chairman.

The CHAIRMAN. The gentleman from Nevada.

Mr. HELLER. Thank you, Mr. Chairman. I appreciate the opportunity to spend some time here with Chairman Bernanke. I will try to stay on some of the macro issues as you led us earlier in the hearing. I don't think there is a newspaper out there today that is not talking about the bad economic news that is out there—the Washington Post, the New York Times, the Wall Street Journal. You read them and it is talking about yesterday's hearings. I have a copy of USA Today in front of me that talks about the signs of growing crisis, the Dow being down, inflation being up, the U.S. dollar down, foreclosures being up. All of this, I think, was re-

flected in your testimony as you spoke with us earlier in this hearing. The only good news I am hearing out there is that by December 31st, the year should be over.

I guess what I want to do is touch on a concept or a statement that I hear too often, and that is too big to fail and the systemic economic impact of these financial institutions and their ability to survive or not. And we have obviously recent examples—Bear Stearns, the Fed steps in; IndyMac, the Fed steps in; GSEs, the Fed steps in. I receive a lot of calls from constituents who are concerned about their deposits in other banks including Wachovia, Bank of America, and Wells Fargo. I guess the question I have—and I have heard you say in the past, correct me if I am wrong, that some of these financial institutions should be allowed to fail. I guess my question is, what is the threshold between a financial institution that the Fed should step in versus one that should be allowed to fail?

Mr. BERNANKE. Well, first of all, IndyMac did fail, and the Fed did not do anything about that. I would add to your constituents, as I mentioned earlier, that all insured deposits were available immediately and no insured depositor is going to take any loss from that.

We have in this episode just been confronted with weaknesses and problems in the financial system that we didn't fully—we collectively, the regulators, the Congress, the economists did not fully anticipate. And in the interest of the broader financial system and particularly as always, always the ultimate objective is the strength of the economy and the conditions for—economic conditions for all Americans. We found weaknesses and we had to respond in crisis situations. I think that—while I certainly would defend the actions we have taken, I would much prefer in the future not to have to take such ad hoc actions and, as I described, I think to Ranking Member Bachus, the best solution is to have a set of rules that govern when a bank can be or other institution can be, you know, put through a special process. In particular, we already have such a process for depository institutions, which is a fiduciary process where the requirement is that the government resolve that bank at the least cost to the taxpayer unless a determination by a broad range of financial officials that a systemic risk exists, in which case other measures could be taken.

So I think it wouldn't be appropriate for me to try to give you any guidelines right now. I think what we are doing right now is trying to do the best we can to make sure the financial markets continue to improve, and that they begin to function at a level which would be supportive of the economy. I think what is critical is as we go forward, we take stock from the lessons we have learned from this experience and try to set up a system that will be less prone to these kinds of difficult decisions that we have had to make.

Mr. HELLER. I appreciate your feedback. When we are talking about 1.5 million foreclosures last year, we are talking about 2.5 million foreclosures in this calendar year. And one of the concerns that I get back—keep in mind that I am from Nevada and the impact that foreclosures are having on all of Nevada, especially southern Nevada, and their concern is that as the Fed is stepping in in

the Bear Stearns issues, the IndyMacs, the GSEs and they don't feel like the Fed is stepping in enough for the 2.5 million people who are finding themselves without homes. Any comments or reflections on that?

Mr. BERNANKE. Well, on two dimensions, one is that, as I said, the actions we have taken—obviously it is not always crystal clear to the public. But we have always taken our actions with an eye to helping all Americans. And in particular, if—when we do take actions to try to promote stability in the financial system, we are thinking about the availability of credit, the safety of investments, mortgage credit, all those things which do affect people's lives. So for example, in these discussions of Fannie Mae and Freddie Mac, I have no particular concern about the companies per se but they are very critical right now to the U.S. mortgage markets and there are people out there who would want to get a mortgage, people out there who would hope the housing market can come back, and that can only happen if there is renewed interest and availability to buy homes. So these actions are intended to make our system work for the benefit of all Americans.

Now with respect to foreclosures specifically, within our powers we have done what we can to try to address that. We have, for example, given guidance to banks that we encourage them to do workouts. I have talked about the need for loan modifications. When other more temporary measures do not succeed in avoiding foreclosure, the Federal Reserve has also been extraordinarily active at the local level. All of our 12 reserve banks and collectively the entire system have been working closely with NeighborWorks and other institutions to try to assist locally in terms of training, in terms of helping communities deal with foreclosure clusters and the like. So wherever we can, given our national footprint, we have been involved in trying to help.

So you know, I would argue that we are addressing this on two fronts. I am first of all trying to help the economy get stronger but also addressing this issue directly.

Mr. HELLER. Thank you very much.

The CHAIRMAN. The gentleman from California, Mr. Baca. Then we will go to Mr. Sherman and Mr. Scott on our side. Mr. Baca.

Mr. BACA. Thank you very much, Mr. Chairman. Mr. Chairman, a combination of declining wealth, a weak job market probably because of all of the outsourcing and its impact that it has had on working families, rising gas, food prices, and foreclosures have created a downward turn on the economy. To put it into perspective: 94,000 jobs have been lost each month this year; 8,500 families are in foreclosure each day; 2.5 million foreclosures are expected in the year 2008; home prices have fallen, stripping away household wealth and equity; the value of the dollar has dropped between 20 to 30 percent; inflation is raising quickly; unemployment has risen to 5.5 percent; and the real wages have fallen to the level of 2001 value.

More importantly is the real impact these numbers have on families. I go back home and my constituents are asking me, what are you doing to bring down the gas prices and what are you doing to help stop the foreclosures? Families are struggling to make ends meet. They are forced to pick and choose between basic necessities

that they can afford each month, food, house payments, child care or gas. You stated that the growth in the second half of this year would be well below the trend due to continued weakening in the house markets, elevated energy prices, and tight credit conditions. But you stopped short at predicting a recession.

Question number one: Is the worst yet to come? And how would you explain to the average American and to the working families who are feeling the impact every day that we are not in a recession?

Mr. BERNANKE. Well, Congressman, first I would like to respond quickly to something about your initial statement. You talked about outsourcing and the like. Probably the key source of the job loss we have had is the decline in the housing market, which has laid off construction workers and has had spillover effects through the financial system and so on. At this moment, our trade sector is actually one of the bright spots in our economy that is creating new opportunities for exports and job growth.

With respect to whether this is a recession or not, that is a technical determination that a group of economists will make at some point in the future. It has to do with the various criteria. I think I agree with the premise of your question, which whether it is a technical recession or not is not all that relevant. It is clearly the case that for a variety of reasons, families are facing hardships in terms of higher energy costs, declining wealth, and all of the things that you mentioned. So this is clearly a rough time. Whether it is a recession or not, as you point out, is not—

Mr. BACA. Do you believe that we are in a recession?

Mr. BERNANKE. I don't know. And I don't know if the—in fact, I am quite confident that the people who officially will determine that don't know either. In the past—

Mr. BACA. Do you feel like the people who are impacted feel like we are in a recession?

Mr. BERNANKE. Again, I think I would not put much weight on this technical terminology. I mean, I think it is clear that growth has been slow, and that the labor market is weak. And so conditions are tough on families. I have no doubt whether it is technically a recession or not, and I don't see how that makes a great deal of difference.

As far as the projection is concerned, we see continued growth, positive growth but weak for the rest of the year. Looking at the housing market, it is beginning to stabilize, at some point around the end of the year, early next year. And with the hope that we can continue to strengthen the financial system, we would hope to see recovery back to more normal levels of growth in 2009. But like all economic forecasting, there are uncertainties in both directions. But with respect to the current situation, again, whether it is a recession or not doesn't really play in our policy decisions.

Mr. BACA. Well, let me ask you the other question before my time runs out. You mentioned the housing sector together with the oil is the heart of the current economic uncertainty. How would we eliminate the uncertainty and cause people to have a greater degree of confidence? And should we do something to address the market speculation in oil to help drive down the gas prices?

Mr. BERNANKE. Well, let me address the oil price situation. I discussed this a bit in my testimony. There are multiple causes, no doubt, for energy price increases. But the most important cause is the global supply and demand balance. The fact that oil, for whatever reason and there are a number of reasons, has not kept up with—oil production has not kept up with the growth in demand for oil particularly in emerging countries which are growing quickly and industrializing. So that suggests that probably the best thing we as a country can do about this is to—perhaps working with other countries, is to promote conservation, alternatives, new energy exploration, all the measures that will help bring us to a more sustainable situation as far as energy is concerned.

On speculation, I also discussed this in my testimony. The Federal Reserve is working as part of a task force with the CFTC to look at these issues empirically. But my sense, based on the information I have at this point, is that speculation or, more properly defined, manipulation is not a major cause of oil price increases at this juncture.

Mr. BACA. Thank you very much, Mr. Chairman.

The CHAIRMAN. The gentlewoman from Ohio.

Ms. PRYCE. Thank you, Mr. Chairman. And I want to thank you, Chairman Bernanke, for being with us today. Thank you for your activity over the last several months. It has certainly been a tumultuous few months. My concern is that we as a Nation, you as the Fed, the Administration, and the Congress seems to be working in a reactionary mode, in crisis mode, that everything that has happened as a result of events. Now I know that you have no crystal ball any more than we have a crystal ball. But we as a committee have responsibility for oversight of the safety and soundness of our financial system. And I just want to ask a very simple question because I just haven't found an answer for it yet. And that is, why did such sophisticated market participants misjudge so badly the risk in the U.S. housing market? Is there an answer that you can impart to the committee to help us understand why we blinked and missed this one?

Mr. BERNANKE. Well, as we look back on it, we see that there were just some serious failures in the management of risks. There were many firms that had exposure to the housing market in a variety of ways across the firm, including holding mortgages and other ways. And they didn't fully appreciate that in the contingency that the housing boom would turn around, that house prices would begin to drop; they didn't fully appreciate their exposure to that situation.

The regulators bear some responsibility on that. It is our job to make sure that they measure and manage their risks appropriately. We have been working on that for a number of years related to bank supervision initiatives like the Basel Initiative, for example, and so on. But it is clear that we need to redouble our efforts to make sure that the risk management is sound, that the underwriting is sound, and that we don't get ourselves into this kind of situation again.

Ms. PRYCE. Well, you mentioned Basel. Are there further risks ahead to our system and therefore the overall economy that might arise, and the new capital adequacy standards in Basel? You know,

if we are trying to have this happen simultaneously, could that create new risk to the system? Effects of a crisis in any overseas market, could that affect our system in a negative way? Further decline in the dollar. There is a list of many things that could potentially happen.

One of the things I would like your comment on is the commercial real estate market. You know, many banks astutely avoided the subprime lending, and they instead expanded their commercial real estate lending. So everywhere we turn we see increased vacancy signs and downward pressure on rents. And do we expect another wave of pressure from that market? And are we planning ahead as a country to address these things as opposed to, you know, being reactionary as it seems that we have had to be of late?

Mr. BERNANKE. Well, on commercial real estate, this was an area where the Federal Reserve and other Federal bank regulators issued guidance several years ago requiring banks that held very high concentrations of commercial real estate to make sure that they were underwriting properly, that they had good risk management. And I believe that guidance, which some people complained about at the time, I think that is going to help us in the near term as we face the situation.

Certainly as the economy weakens there is going to be a somewhat weaker performance of commercial real estate. But to this point, we are not seeing anything remotely like, you know, what we have seen in the mortgage market. But it is obviously something we are going to have to keep our eye on.

Ms. PRYCE. Can you comment on anything that is happening at the Fed in terms of future planning out for other contingencies? You know what I mean. So that we have less of, you know, a reactionary mode in the future?

Mr. BERNANKE. Well, we are working with our international counterparts in trying to strengthen the regulatory system. You mentioned my mention of Basel. Clearly we learned some of these in this last year and the Basel Committee is looking at places where they should strengthen capital requirements, strengthen liquidity management requirements, and so on. So as that becomes rolled in over time, it will reflect what we have learned from the past year. So even as we are trying to manage the current difficulties, we are also working with other regulators and with Congress to try to make sure that our system would be stronger and that we will emerge from this with a system that is a lot more resilient than we saw in the last year.

The CHAIRMAN. The gentleman from California.

Mr. SHERMAN. Thank you. First, a few comments. I would like to join the chairman with regard to his comments on your consumer protection efforts. Your statements say that the new rules will apply to all types of mortgage lenders. So for the record I will ask you to refine that a little bit. I can't imagine that those rules will apply to individuals who make loans in order to sell their homes or whatever.

I would also note that in your statement you say that despite a sharp increase in prices, production of oil has risen only slightly. And then you go on a couple pages to go on to explain why oil production has only risen slightly. I would add to that—and I am sur-

prised that you didn't mention the fact that OPEC exists for the exact purpose of preventing increases in supply and that the Saudis have oil fields ready to go. They could turn on the spigot and they have refused to do so. Talking about oil prices, there is a lot of talk here in Congress about, well, what can we do to decrease demand by 10,000 barrels a day? Or how can we go drill and get 500,000 barrels a day?

There is a worldwide price for oil. And what level of production, or in the case of the SPRO not acquiring for reserves, how many barrels a day would the United States have to deal with in order to really affect the world price of oil? And in contrast, there is a North American price for natural gas. What percentage increase or decrease in supply or demand of natural gas would it take to have a perceptible effect on the prices consumers pay?

Mr. BERNANKE. Well, first on the lending rules, the Federal Reserve normally issues guidance and rules for the banks that it supervises. But of course as the mortgage market has evolved, more and more mortgage lending took place in nonbank companies, various kinds of mortgage companies, brokers and the like. And our rules will apply to all of those types of companies. In some cases, when they are outside of our enforcement authority, we have to rely on State and other regulators to enforce the rules. And therefore, as part of this effort, we are working closely with them, doing some joint examination exercises, and so on, to try to help them ensure that they will enforce these rules.

You made a good point, that the global oil market, about 84 million barrels a day, is large. And so it takes—you know, that very small change in oil supply and demand would not necessarily have a big effect. But I would make a couple of comments on that. One is that the fact that we have to import most of our oil hurts our trade balance, forces us to send money overseas, so to speak. It would be better for the dollar and better for our economic prosperity here at home if we had more sources of energy domestically.

So that is one consideration. The other consideration is that—and we can see this in the tremendous movements in oil prices up and down, over a short-term period even though there is a large market, the elasticity of supply and demand, the ability of suppliers or demanders to change their behavior in the short run is quite limited. So sometimes relatively small events like a strike or political unrest in a given country can have a big effect on the price because there is so little spare capacity. So to the extent that that spare capacity could be enlarged and have more flexibility, that could have—

Mr. SHERMAN. Is there any way to give a numerical answer? Would half a million barrels a day affect the price, a quarter million?

Mr. BERNANKE. Well, any—

Mr. SHERMAN. Can you give me figures on natural gas?

Mr. BERNANKE. But the short-term elasticity is sort of that a 1 percent increase in supply could lower prices as much as 10 percent.

Mr. SHERMAN. Is that your natural gas answer or does that answer apply to oil as well?

Mr. BERNANKE. I assume natural gas is similar. Natural gas has more flexibility to use it in electricity generation and so on. So I am not sure it is quite the same.

Mr. SHERMAN. Okay. Now a question for the record relating to Bear Stearns. The rules of capitalism which are applied with a vengeance on Main Street would have said that in a situation like that, the shareholders and the subordinated debt holders should take the losses long before anybody else. But in the deal that was worked out, not only did the shareholders get \$10 a share, which I realize is far less than they had hoped for, but the subordinated debt holders are going to get every penny with interest. And I wonder whether giving you the right to demand the conservatorship immediately would put us in a position where we could impose the risks and costs not on the taxpayer but on those who are supposed to bear them.

Mr. BERNANKE. I agree. We need some kind of resolution regime that will help us do this in a more orderly and predictable way.

The CHAIRMAN. The gentleman from Delaware.

Mr. CASTLE. Thank you, Mr. Chairman. And Chairman Bernanke, I am going to talk about something else that you mentioned that concerns me in terms of our economic future. At the very end of your testimony, you mentioned that the Board worked with the Office of Thrift Supervision and the National Credit Union Administration to issue proposed rules under the Federal Trade Commission Act to address unfair deceptive practices for credit card accounts and overdraft protection plans. You suggested credit card issuers should alter their current practices. You also note that the Fed has received over 20,000 comments on the proposed UDAP rules.

I hope the Fed will be deliberate and take time to closely scrutinize these comments. I presume you share my concern that while we want to protect consumers, we likewise want to maintain a competitive credit card market, and not further damage the standing of the financial services industry.

Any comments you have beyond that I would appreciate.

Mr. BERNANKE. Only to agree with you that both in our mortgage rules and in the credit card rules we want to strike an appropriate balance between increasing clarity and eliminating bad practices on the one hand versus making sure the credit is still available on the other. And that has always been our balance and has always been our concern.

With respect to credit cards, we have been using consumer testing quite a bit to see what people could understand, what they do understand about their statements and about the provisions of their contract. And we find that there are some elements that it is just very difficult to explain, like double cycle billing for example. And you know markets work best when people understand what they are buying. And so there may be some circumstances where the market will actually work better and produce more credit in situations where there is not so much distrust and confusion about what it is exactly that is in the contract. And that is the kind of thing we have been trying to tackle.

Mr. CASTLE. Thank you. On another subject, Mr. Ackerman and I have introduced legislation which was numbered H.R. 6482 to de-

termine what kind of structured finance investments are eligible to receive ratings from National Recognized Statistical Rating Organizations. We feel measures like these would contribute to restoring confidence in financial markets.

Would you agree that small steps like this one could contribute to the overall stability of our market or any other comments you may have concerning the credit rating agencies and their role, particularly in the housing circumstance?

Mr. BERNANKE. Well, the SEC has been quite active in this area with support from us and the President's working group and international regulatory agencies. There is a wide variety of steps that they have taken, including looking out for potential conflicts of interest, providing guidelines for increasing transparency to investors so they can better know how to use the credit ratings; discussing the idea of making credit ratings for different types of instruments, corporate bonds versus structured credit versus municipals; having different rating schemes and so on.

So we recognize, as I said earlier, this episode has shown a lot of areas where our financial system wasn't as effective and strong as we thought it was. And this is one of those areas. And you know I think there is a lot of activity underway to strengthen the credit rating agencies.

At the same time I think we have learned—and this is true both in a regulatory context as well as in an investor context—that there really is no substitute for direct due diligence. The investor has to do their own work, and that includes more than just looking at the credit rating.

Mr. CASTLE. Well, not to argue with you or to beg the question, I would agree with you except it is very hard and complex for many investors to do that. And I am thinking of the pension funds and others who are making relatively big decisions as well as individuals. So it concerns me a little bit. There is a dependency on the credit rating agencies' reports, I believe.

Mr. BERNANKE. Then you can have a fiduciary or an investment manager that can provide advice.

Mr. CASTLE. One final area, and I just read this in the papers today, but the whole question of the GSEs and their future. I have read what your recommendations are and obviously we need to consider that with respect to loans or capitalization or whatever. But a further question is, are they sound at this point? I mean, are they well-capitalized? Should we consider a privatization or nationalization of these entities? Are we going in the right direction with respect to Fannie Mae/Freddie Mac in particular?

Mr. BERNANKE. Well, they are adequately capitalized at this point. And you know the OHFEO says that they are fine and they can continue to operate and there is nothing about to happen. But we want these firms not just to be, you know, solvent, which is of course critical, but beyond that we want them to play an active role in strengthening and stabilizing our mortgage market because they really are a big part of what is going on in mortgage markets right now. And to the extent that—even if regulatory criteria are met, to the extent that markets have lost confidence and shares have come down and spreads widen, we need to restore that confidence so they can have the financial strength they need to not

only be solvent, which they are, but to go ahead and be more proactive in strengthening our mortgage markets.

On the broad issue, you know based on the discussions I have had and my own thinking, it looks like the best solution at this point is to maintain their current form but to increase the supervisory oversight, make it much stronger, which is part of the bill that has been looked at in both the House and the Senate, and to take whatever steps are needed to try to restore confidence in the markets, that these are in fact strong institutions going forward.

Mr. CASTLE. Thank you.

The CHAIRMAN. The gentleman from Georgia, I would just ask him for 10 seconds to say that yes, that is exactly right. The bill this House passed in April of last year gives all of those new powers to the regular Fannie Mae and Freddie Mac, including the right to put them in a conservatorship. All the powers of the gentleman, that the Chairman has asked for with regard to being able to resolve other issues, they are in the bill that we hope to pass soon and send to the President regarding the GSEs.

The gentleman from Georgia.

Mr. SCOTT. Thank you, Mr. Chairman. Chairman Bernanke, let me first start by complimenting you as well. I think you have done a remarkable job in responding. Your views, your tools very wisely of the rate cuts and your action to protect our Fannie and Freddie are very, very important to send a signal to the world that we are going to keep our markets as stable as we can.

Let me just assure you that this economy is deeply in a recession certainly, and in many parts of our country they are hovering around the elements of a depression. Many American families are just basically hanging on by their fingernails. And you touched on two major areas of concern to that, which of course are housing and energy.

Let me start with a series of questions. First of all, I believe strongly—you have touched very excellently on the oil and the energy concerns that we have, especially our overwhelming dependency on oil, which I was very delighted to hear you say we need to wean ourselves off of. But we are not doing that quickly enough, Chairman Bernanke. And one area in which we are failing miserably is in the area of quickly, the most effective way I believe we can bring down immediately the cost of gasoline, and that is what the American people want. They want immediate answers now. Drilling is not that answer. None of that is our answer. What is our answer is getting some alternatives on the market quickly that will cut our demand on foreign oil. And nowhere is that more precise than in ethanol.

And with that, I would like to ask you why, for example, it would take a tremendous downward pressure and immediately lower the price of gasoline at the pump today if we would remove the 54 cents per gallon tariff that we have on ethanol coming in from Brazil made from sugarcane, the most potent, the most effective form of ethanol. That would help immediately increase the available supply. If they are running the automobiles in Brazil, 90 percent of them off of ethanol made from sugarcane, and they have plenty of that, that would make a lot of sense for us to immediately lower that 54 cents and bring in as much of that ethanol as we can

so it would offset this great need and gluttony that we have for this imported oil and would send a loud message over to OPEC.

First of all, would you recommend that? Is that not a smart thing to do, to take that 54 cents a gallon tariff off of the imports of ethanol made from sugarcane from Brazil?

Mr. BERNANKE. Congressman, I do support free trade, and I think that would be a good step to take. I think it would be helpful. I wouldn't want to overstate it because of course Brazil is using a lot of its ethanol for its own country. And indeed they have been remarkably successful. They are essentially energy self-sufficient based on ethanol and their own oil sources and so on, which is a very different situation from where they were in the 1970's.

Mr. SCOTT. Absolutely. Let me get to my other point. I am glad to hear you say that. And I think we should move to do that.

In other areas, in biodiesel fuel, for example, I have not heard any incentives, any cries from the Administration or anybody to increase the output of biodiesel fuel. We have advances being made, for example, in my own district in Georgia, in Clayton County. In Ellenwood, we have a biodiesel plant that is making biodiesel not from petroleum, not from oil, not from fossil material, but from the fatty parts of chicken and pork. And Chairman Bernanke, they are producing 18 million gallons of it a year, going directly to the market, not on a world market, but going directly to the points of distribution in that area.

Where are the incentives for biodiesel fuel when we have the mechanisms for that? If we have that one plant that is producing 18 million gallons going directly to the market, wouldn't it make sense to get behind this movement? It would create more jobs and help stimulate the economy.

Before my time is out, I wanted to ask you another question—

The CHAIRMAN. Excuse me, gentleman. There won't be time to get an answer. I apologize. We have 5 minutes. If you can make it quick.

Mr. SCOTT. I have two points. Your answer on the economic stimulus package, how good was it, is it good, and given the weakness of the economic forecast, wouldn't it make sense perhaps to extend another round of that economic stimulus package to get some checks more directly into the hands of the American people?

The CHAIRMAN. The Chairman can answer that.

Mr. BERNANKE. First of all, what is the incentive for biofuels? The high price of oil is a pretty strong incentive. As long as there is regulatory clarity about what is involved, I think there will be plenty of market-driven movement in that direction.

On the fiscal stimulus, I believe the one that was done is having some effects. But it is somewhat early to make that judgment. And so you know I certainly think that we should consider all options. At the moment I think it is a bit premature. With all due respect, what I suggest at this point is that the most pressing need is in the housing sector and the Fannie issue and in the housing measures, and that is where I would urge you to look now.

The CHAIRMAN. The gentleman from California.

Mr. ROYCE. Thank you, Mr. Chairman. Chairman Bernanke, for a better part of a decade there has been a push to improve what is a very weak regulator in OHFEO over Fannie and Freddie. And

I remember the week after you took your position we talked about this issue. We were in agreement. Here on this committee I have raised this issue countless times. In 2003, I introduced the first legislation which sought to bring Fannie and Freddie and the Federal Home Loan Bank System under one strong regulator within the Federal Government.

Back in 2005, I introduced an amendment on the House Floor to give the new regulator the authority to review and adjust the GSEs' retained portfolios in order to mitigate against systemic risks. This is the same thing we are trying to do now with an independent regulator. And we are now witnessing what the current weak regulator, without the ability to mitigate against systemic risk, means for these two institutions and our broader capital markets.

I will just mention that the majority of my colleagues voted against that amendment on the Floor of the House. But as we go forward with an episode here that could have been prevented long ago had your counsel or the counsel of those of us pushing this had been taken, we move closer now to passing legislation to strengthen the regulator for Fannie and Freddie.

And I must again express my sincerest opposition and frankly my amazement to the inclusion of a roughly \$600 million affordable housing fund and a \$300 billion bailout for lenders and speculators that has been put in the bill. And I said this since its inception, this affordable housing fund is straight out of Central Planning 101. It should not be accepted by my colleagues. It should not be accepted by this Administration. And much of this money, pushed for by certain NGOs, will most likely end up in the pockets of a group of radical activist organizations with history of both voter fraud and anti-free market advocacy nationwide.

So even if the money is used to promote affordable housing, because it is fungible, the American taxpayers will be indirectly subsidizing the most egregious actions taken by certain radical groups. So unfortunately, the safeguards in the bill meant to prevent abuses are far from sufficient. As a recent Wall Street Journal editorial noted, if later investigations prove the taxpayer funds were misused, the bill provides that recipients can simply return the amount of the grant with no further financial penalty.

And Chairman Bernanke, I know you are not an advocate for this fund. So I will spare you a line of questioning to address that part of the issue, but I would like to get your thoughts on an additional issue, and that has to be on stability in the economy. As we watch our capital markets, as we watch this economy struggle, I believe there is plenty Congress could do to help in the recovery. And I think if we are able, I believe we should provide certainty to the environment in which our companies operate. And part of that certainty, if we go back to a speech that you gave as Chairman of the Council of Economic Advisors, you mentioned the 2001 tax cuts. And you said, additional tax legislation passed in 2002 and 2003 provided incentives for businesses to expand their capital investments and reduce the cost of capital by lowering tax rates on dividends and capital gains.

Well, with those cuts looking to expire in 2010, it would seem critical to give the markets the certainty necessary to recover fully

in the coming months. So I would ask, Chairman Bernanke, do you still agree with your previous assessment of the impact of the 2002 and 2003 cuts on the economy? And what would be the effects of an increase in the capital gains and dividends rate of 20 percent or higher as being discussed, what would that effect be on our already weak capital markets, especially considering the much lower rates that exist around the world?

That would be my question to you now.

Mr. BERNANKE. Thank you. First, let me just agree with you on the regulator. He fought a good fight. The Federal Reserve, my predecessor for many years raised these issues. And you know, it would have been helpful if we had been able to do that. I don't generally in my current capacity comment on tax policy, but I do think and I expect that the Congress as they think about all these things, all these packages, you know, will be looking—I am sure you will be looking at the cyclical situation and trying to see what impact that has along with any other fiscal steps you might be taking.

Mr. ROYCE. Thank you, Chairman Bernanke.

The CHAIRMAN. The gentleman from Missouri.

Mr. CLEAVER. Thank you, Mr. Chairman. I have some curiosity about the radical groups my colleague was talking about, but I will suppress that and move on.

Mr. Chairman, because our economy seems to have so many economic moving parts and with connections to the world economy, is it possible any more for us to bring forth a clear forecast? I mean, has forecasting just been tossed out of the window?

Mr. BERNANKE. Forecasting is always very difficult, and it is extremely difficult when you have the kind of financial issues that we have had recently because it is just hard to know which way that is going to go.

Unfortunately, for monetary policy purposes, because monetary policy works with a lag, even if our forecasts aren't very good, we have to take our best stab because we have to have a sense of where the economy will be when the monetary policy actions begin to take effect. So we have at the Federal Reserve just about the best team of forecasters anywhere, and they have done a very good job over the years. But they are facing a very, very tough environment both because of the global issues that you mentioned and because of the changes in financial situation.

Mr. CLEAVER. That question actually was a setup for the next question. And to some degree it may have been asked in various forms. Each night since this has started I have been taking piles of stuff home and reading it and essentially dropping a rock down in a well, and I have been waiting to hear the sound of a splash and I haven't. I am wondering if you have. I mean, is there a bottom? And if so, how long before we hear a splash? My concern, the airline industry is now hemorrhaging and crying. It appears as if, you know, one—we are having a domino effect. And you know I think as the cries go up, more and more people are becoming afraid. I used to say that we had a transportation-based economy. Now I am wondering if we have a confidence-based economy. Help us, please.

Mr. BERNANKE. Well, Congressman, it is the nature of my testimony. I am supposed to be reporting on the next 6 months and the

immediate period ahead, so I tend to have a very short-term focus. Obviously, we have a lot of challenges in the near term.

I can't predict precisely the contour of economic activity going forward, but I am personally very confident that we will return to a strong growth path. I think it is very striking that even during all that uproar, U.S. labor productivity has continued to grow faster than almost any other industrial country. It just shows how strong this economy is. We will work our way through these financial storms, we will work our way through this cyclical movement that we have, and the economy will return to good growth, but we just have a few things to work through on the way to doing that.

Mr. CLEAVER. This is a rhetorical question, I think. We need action immediately with regard to the housing bill that is in the hands now of our chairman and leadership.

Mr. BERNANKE. I would advise prompt action on housing issues, including Fannie and Freddie.

Mr. CLEAVER. Thank you, Mr. Chairman.

The CHAIRMAN. If he would yield, the Chairman again said, and we should be proud of this, that American worker productivity is growing faster than anywhere else in the world. Worker compensation is failing to grow comparably, and that is a fundamental social and economic issue we have to address.

The gentlewoman from Illinois.

Let me say to people that we are going to have to vote soon, so I am prepared personally to miss the vote on the previous question on the intelligence bill, which will give us maybe 20 minutes from the time of the first vote. Anyone who wants to stay and continue to ask questions is welcome to do that. But there are a series of votes, so we will have to end it at that point. So about 20 minutes after the bell rings, we will have that amount of time.

The gentlewoman from Illinois.

Mrs. BIGGERT. Thank you, Mr. Chairman.

Chairman Bernanke, thank you for being here. I would like to thank you for your work to update the regulations to protect consumers; in particular, thank you for taking action on the credit card regulations, Reg Z and UDAP, and recently finalizing the HOEPA regulations that protect consumers and I think restore confidence in the mortgage market.

I think that you published on July 14th final rules amending Regulation C. When do you anticipate that the credit card regulations will be finalized?

Mr. BERNANKE. My understanding—and if I am mistaken, we will follow up—my understanding is that we aim to complete that this year, later this year. We are trying to coordinate our Reg Z disclosure package with the UDAP rules so that companies can implement all this at the same time. So those two things ought to be released at the same time. We are looking to do that, to my knowledge, this year.

Mrs. BIGGERT. One aspect of the proposal would require creditors to provide transaction-specific mortgage loan disclosures, such as the APR and payment schedule for all home-secured closed-end loans no later than 3 days after application. This proposal sounds very similar to HUD's efforts to reform RESPA. I just wondered if you had worked with HUD in preparing this regulation.

Mr. BERNANKE. We have worked with HUD on these issues, the mortgage disclosure issues, because we both have responsibilities in this area, and obviously the more coordinated we can be, the better off the public will be. So we have worked with HUD for a number of years as we have looked at their changes in their disclosures. But there is no joint approval process. This is our product.

The CHAIRMAN. If the gentlelady would yield. She has asked two very important questions. But you are going to make a regulation so the HOEPA regulations and HUD's RESPA, we hope there can't be any conflict there.

Mr. BERNANKE. It has been our interest to do that for a number of years.

The CHAIRMAN. When the gentlewoman asked about credit cards, and you said you would try to coordinate, is that true of the overdraft? Are they all going to be done at the same time? The credit cards and the overdraft, are they also on the same timeline?

Mr. BERNANKE. The overdraft is on the same timeline as far as comment is concerned. Frankly, I don't know whether there is a possibility of breaking that off and releasing that earlier.

Mrs. BIGGERT. Thank you.

When you were doing the disclosure rules, there was a real focus on the consumer testing. Was there similar consumer testing done as you put out the proposal on unfair and deceptive card practices?

Mr. BERNANKE. There was consumer testing, and it was precisely that consumer testing that led us to conclude that there were certain practices that could not be made adequately transparent through disclosures that did not have direct beneficial effects to consumers. That outweighed whatever problems that might arise. That was the reason that we, in some cases, chose prohibition over disclosure.

Mrs. BIGGERT. There has always been this worry that this is going to limit credit, some of the regulations are, whether there was going to be legislation. Do you think that this will, the regulations will, result in a reduction of the credit that can be offered?

Mr. BERNANKE. We are going to monitor that closely. As I said before, we always want to try to balance availability of credit versus having a transparent marketplace. I do think that markets work better when the information is good. So even if the equilibrium amount of credit is a little different, maybe people will be getting products that are better for their needs and that they better understand. So it may be in some sense more effective and more helpful credit than we had before.

Mrs. BIGGERT. So education is a big part.

Mr. BERNANKE. Education is very important, but I have become persuaded over time now that you need three things: education on the consumers' part; good, effective consumer-tested disclosures; and as a last resort, when those two things do not adequately protect the consumer, then you need to use the ability to ban certain practices.

Mrs. BIGGERT. Thank you.

I yield back.

The CHAIRMAN. The gentlewoman from Wisconsin.

Ms. MOORE OF WISCONSIN. Thank you, Mr. Chairman.

And thank you, Mr. Chairman, for all the work that you did over the weekend for sort of cooling out the housing crisis.

I read through your testimony, and I was very interested in your comments regarding the commodities market. You say that you doubt that financial speculation is the cause, a causal factor, in the upward pressures on oil prices, but you find that you are baffled by what it could be. You say that "this is not to say that useful steps could not be taken to improve the transparency and functioning of futures markets, only that such steps are unlikely to substantially affect the prices of oil and other commodities in the longer term."

I was curious. I would like for you to expand on that and explain that to me.

Mr. BERNANKE. About the possible steps?

Ms. MOORE OF WISCONSIN. Yes.

Mr. BERNANKE. Well, with respect to possible steps, as I indicated, the Federal Reserve is part of a task force being led by the CFTC, which is trying to get as much clarity as we can on exactly this question, and that includes right now we and the CFTC in particular has been gathering information from other petroleum futures exchanges like the ones in U.K., has been gathering information on the activities of swaps dealers and index traders who invest in these economies. We are trying to understand how these investments are made and how they relate to price movements, those sorts of things. So we are looking at that seriously.

It is possible that the CFTC may decide, and, of course, it is their province to do so, that changes in the information requirements or in positions, limits or things of that sort might be justified under certain circumstances.

There is a lot of evidence, though, on which I base my earlier statement in the testimony that makes it seem unlikely that speculation or, better termed, manipulation is driving up energy prices. I mentioned the absence of inventories. There are a number of other things. For example, there seems to be no empirical relationship between long, open positions by noncommercial traders and movements in prices. It is striking that there are many or at least some commodities which are not even traded on future markets which have had big price run-ups, like coal and iron ore, for example.

So it doesn't seem to us to be the central issue. It does mean that energy prices in the very short run can respond quite sensitively to news that comes in because they begin to trade like a stock price, for example. But that is not necessarily a bad thing; that means that information is being incorporated into those prices, and that helps suppliers and demanders know how better to respond.

Ms. MOORE OF WISCONSIN. Mr. Chairman, thank you for that.

Is the SEC a part of this committee that is looking at the commodities irregularities?

Mr. BERNANKE. I believe so. Yes.

Ms. MOORE OF WISCONSIN. All right. I know that the CFTC and the SEC have been having talks. Do you think—this committee, by the way, doesn't have jurisdiction over the CFTC, and I think most of the questions have been related to commodities. Do you think that we need to modernize our regulatory system by having these

commodities come under the same jurisdiction as the SEC? I know the CFTC and SEC have been talking about such a collaboration or merger, and I am wondering, do you think there would be any benefit in that?

Mr. BERNANKE. I know that they work very closely, and there are areas where there is some overlap of responsibility and jurisdiction. The Treasury Blueprint for reform envisions that we would merge at some point. I don't really have a recommendation to make on that. I think it would depend in part on the overall plan for regulatory reform if, in fact, that takes place in the context of that broader plan.

Ms. MOORE OF WISCONSIN. Well, I just only say that because so many of these commodities are paper transactions and futures contracts versus bringing your hog to the marketplace to sell. It seems to me that the modern thing would be to bring these together and have perhaps a better regulatory framework.

I yield back.

The CHAIRMAN. I will say in the 10 seconds I will borrow from the gentlelady, my jurisdiction proposal is we leave with the Agriculture Committee jurisdiction over all those futures and things you can eat, and we get the rest.

The gentleman from California.

Mr. MILLER OF CALIFORNIA. Thank you, Mr. Chairman.

I kind of enjoyed the comments that the Federal Reserve is getting blamed for not dealing with the predatory issue as it applies to subprime. But I recall 5 years ago, I repeatedly tried to introduce language to effectively define what predatory was versus subprime and included the issues you have dealt with finally. So I feel guilty blaming you for something 5 years ago we should have done and didn't.

The purpose and intent of the GSEs was to inject liquidity into the marketplace, which we have done. If you look at the amount of loans that are out there, I think it has proven to be very beneficial to the housing market.

Having been a developer for over 35 years, I have been through the 1970's recession, 1980's, 1990's. Any time you see a housing boom, you know eventually there is going to be a housing recession occurs. It has happened repeatedly. This one is a little different, but every one I have been through has been somewhat different.

In the stimulus package we passed recently, I think the most important part on the economy was increasing conforming loan limits for FHA and GSEs. Sending people a check, yes, there is a benefit to that. But the main reason I think for the situation the economy is in today is because of the housing recession we have gone through. I think raising conforming loan limits in high-cost areas has gone a long way to mitigating an impact that could have been worse than it was. Especially in California and other areas there are many lenders that will not make a loan today if it is not conforming because they don't have the assets basically to tie their capital up if they can't make the loan and sell the loan off.

Now, there has been discussion about after December 31st, we are going to be dropping those limits down to much lower levels. I believe that is going to have a major detrimental impact on the

housing market because it sends—even the discussion and debate about doing that sends a message that we are not going to be committed in the future to trying to create liquidity in these high-cost areas.

I would like to have your opinion on that issue.

Mr. BERNANKE. First, you are correct about the centrality of the housing market. The issue you raise should be predicated on Fannie and Freddie being strong and effective and having good supervisors. I think that is really the first step.

I recognize that there is disagreement about where the loan limits should be. I think in the near term that there is some benefit to having a bit more scope, but I recognize there is disagreement about that. So my main hope is that you will come to a good consensus and get legislation out.

Mr. MILLER OF CALIFORNIA. Let me rephrase my question so maybe you can answer it then. The reality is that many lenders in areas will only make loans that are conforming because they lack liquidity of their own because of the market requirements placed on them, and that they are making loans today that, and am I not correct, if GSEs are out of the marketplace, those loans otherwise could not be made? Is that a fair assumption?

Mr. BERNANKE. Not a universally fair assumption because there are lenders that make loans and hold them on their balance sheets. Where you are correct is that the normal securitization function whereby a lender would make a loan, a jumbo loan, and then sell it to be securitized, that that securitization function for loans that don't conform to Fannie and Freddie has broken down, and it is a reason why there is a fairly unusually high premium or a differential in the mortgage rates on jumbo loans relative to conforming loans.

Mr. MILLER OF CALIFORNIA. Now, when GSEs and FHA got into the marketplace in the stimulus, rates dropped 400 percent basis points below what they were. The way I see it, in the economy where a housing market is depressed to begin with, we are going and making loans in areas that the housing market has actually declined in value, which are actually safer loans, but the individuals are saving a tremendous amount of money on their payments because the GSE loan is at a much lesser interest rate than a normal jumbo loan. Do you not see that as a benefit to turning the housing market as it exists today?

Mr. BERNANKE. The Fannie and Freddie function of securitizing mortgages and getting them into the secondary market, providing a new source of capital for mortgage lending, is clearly the most valuable thing that they do. I am not quite sure I understood all of your question, but I do want to reiterate my support for making it possible for them to continue to do that on an expansive scale.

Mr. MILLER OF CALIFORNIA. My goal is to say that the more liquidity we can inject into the marketplace will create a higher percentage of—higher possibility that the marketplace will turn much more rapidly and create more stability, and should we do things to create less liquidity in the marketplace that will also have the opposite effect?

Mr. BERNANKE. Providing mortgage credit to all qualified borrowers by itself will not necessarily turn the housing market

around, because there are a lot of other fundamental issues. But to the extent we can make mortgage credit available to those who want to buy homes and who are credit-qualified, I think that is something we should try to do.

Mr. MILLER OF CALIFORNIA. Thank you.

The CHAIRMAN. The gentleman from Tennessee.

Mr. DAVIS OF TENNESSEE. Mr. Chairman, thank you very much.

Chairman Bernanke, thank you for being here. This is the second day, I understand, that you have been on the Hill. It would be my hope, and I think all of us on this committee and certainly on the other side, that you could solve our problems overnight with these 2 days of hearings. But thank you for being here and offering and being willing to make suggestions, and for your leadership with the Fed.

Our country is readjusting to living in the world with far less available credit and high energy prices. Either would be a problem, but both at the same time guarantees a long period, in my opinion, of uncertainty as business adapts. The evidence is increasingly clear that the economy fell into a near recession in January, which set off a significant contraction in lending. Our hopes that the tax rebates here in Congress would spur a recovery by midyear have been dashed, in my opinion, at the feet of \$150-a-barrel oil.

Now, new signs of problems that lenders, large and small, are beginning to surface despite very wide interest margins. The failure of inflation to spill over into wages has left consumers stripped of buying power. By the combination of the credit crunch and oil prices, businesses are becoming increasingly cost-conscious in the face of weak volume growth and inability to pass on oil inflation. The result is weaker jobs in the district I represent, job growth, more defaults, tighter credit, and a growing spiral of economic weakness and, in my opinion, not inflation.

As you noted earlier, we have seen payroll employment fall 62,000 jobs in June, with downward revisions for another 52,000 for the 2 previous months. This was the 6th consecutive month with declining jobs.

While I understand that it is politically more expedient for you to keep emphasizing inflation concerns, while watching the data as it develops in coming months, this is a clear signal from the job market that the U.S. economy is slowing to stalled speed, and that the risk is not just inflation, but rather of a slide into a full-blown recession.

The inflation hawks constantly reinforce the argument that maintaining a low and stable inflation rate is the best way to achieve maximum sustainable growth. Yet, to the man on the street, the rising unemployment rate, in my opinion, is the key indicator. I think we need to start adjusting so we are thinking about inflation as being the major problem that we have today.

The question I want to ask—and I want to make a statement basically about what happened to the Nikkei average in 1989 and 1990. We saw reluctance of lenders and a reluctance of the National Bank of Japan to address, I think, the main issue there was over-inflated prices of homes, mortgages, high interest rates. When you look at the value of the land around the Emperor's palace,

some folks said it actually brought in currency more than the entire appraised value, tax-assessed value, of the State of California.

When you study and other economists study the almost near collapse of the Nikkei average from up 40,000, down to roughly 8,000, an 80 percent drop, as you have looked at that, have you also studied the regulatory authorities demanded by the Government of Japan to be sure that never happened again? And have we put in place and are you recommending that some of those regulatory authorities be established here in the United States?

Mr. BERNANKE. That was a very difficult episode for Japan when the bubbles in both the stock market and in property prices collapsed at the same time. I think the key lesson that we learned from that experience was that in Japan, banks had very wide holdings in land and equity and other assets whose values came down, and so the banks were in very, very bad financial condition, but they were not required to disclose or inform the public about what their actual condition was.

For many, many years they kind of limped along. The same with the companies they lent to. They didn't call those loans because they knew they couldn't be paid. So it was a situation in which there was a reluctance to act and in which transparency was quite limited.

I think one benefit of our current system here in the United States is that as painful as it is to see the losses that financial institutions are suffering, at least they are getting that out, they are providing that information to the public, and they have been proactive in raising capital to replace those losses. In order to avoid a prolonged stagnation, as in Japan, it is important for us to get through this period of loss and readjustment and get back to a point where the financial system can again support good, strong, stable growth for the United States.

The CHAIRMAN. The gentleman from Texas.

Mr. HENSARLING. Thank you.

Chairman Bernanke, last week on Thursday when you were before our committee, I asked you a question about the criteria by which the Fed chooses to open the discount window to nondepository institutions. As part of your answer you said, "I don't want to do it again." But clearly, 4 days later you did. So it hadn't happened in 70 years. It has now happened twice, I guess, in the last 3 to 4 months. So I have a couple of questions related to that.

One, I am very concerned on where does the moral hazard end. And to, I guess, capture a phrase of our ranking member, I think there is the danger of us adopting nationally a system where if you are big enough, if you are interconnected enough, if somehow the interplanetary economic stars align just right, you are in a position to privatize your profits, but socialize your losses to where the taxpayers end up picking up the tab.

My theory is that we could have even greater S&L debacles, greater Fannie and Freddie debacles. I know since I have been here for almost 6 years, people have been raising a hue and cry, including myself, about how big these institutions are getting, how they are increasing their risk profile. Your predecessor spoke fervently about the systemic risk, yet we find ourselves here today.

So I guess my question is it is still somewhat unclear to me what is the criteria by which you open this discount window to non-depository institutions. I think I heard in a response to the gentleman from Nevada, it sounded like either one objective criteria doesn't exist today, and it is done on an ad hoc basis, or perhaps you are being purposely ambiguous in hopes that the institutions will not feel that they qualify, in the hopes that we don't have the moral hazard problem.

So if you could give me further illumination as of today, this moment in time, what is the criteria for which the discount window is open to nondepository institutions?

Mr. BERNANKE. In the case of Fannie and Freddie, our attention was very, very limited. The Treasury Secretary had a bunch of proposals to ask Congress to take steps to restore market confidence in Fannie and Freddie. Our intention was to just provide a bit of bridge to the point where Congress could make its decision about how to restructure those firms.

Mr. HENSARLING. Mr. Chairman, let me interrupt. Did representatives of either Fannie or Freddie approach you to have the discount window open?

Mr. BERNANKE. No.

Mr. HENSARLING. So they did not request this, to the best of your knowledge.

Mr. BERNANKE. Not to my recollection, no.

Mr. HENSARLING. Thank you. Continue on.

Mr. BERNANKE. So we have used it very sparingly in our history. We have done so in this current episode in situations where we thought it was helpful to the broad financial stability of the economy.

I agree with you 100 percent about moral hazard, but I think the time to think about that is in advance. We need to take steps going forward to clarify exactly when the Congress wants us to take these kind of actions and under what circumstances that would eliminate moral hazard.

I mentioned previously the importance of strong, consolidated supervision of the investment banks, of strengthening the infrastructure, of developing resolution regime. The reason the savings and loans crisis went the way it did is because there was a forbearance, regulatory forbearance. There were no guidance or rules or laws about how the regulators ought to treat companies that were under water.

Mr. HENSARLING. Mr. Chairman, at this time if we can't say precisely who would qualify for the discount window, I suppose the converse is true as well, we can't say who doesn't qualify. I mean, for example, would Anheuser-Busch qualify? Many Americans might consider them more mission-critical to the Nation than Fannie and Freddie.

Mr. BERNANKE. We have to make findings of unusual and exigent circumstances. I think our criterion has been—and, again, despite what I said last week, I will say again, I hope we don't ever have to do this anymore—my criterion would be to provide liquidity and support in circumstances where we thought there were concerns about the systemic risks associated.

Mr. HENSARLING. Speaking of not having to do this again today, nobody wants to see Fannie and Freddie fail. They are too big to fail today, but I want to ensure they are not too big to fail tomorrow on the taxpayer dime or perhaps, more precisely, the taxpayers' \$5 trillion. In your professional opinion, is there anything inherent about the secondary mortgage market that would prevent Congress from considering reconstituting these companies as part of the quid pro quo for their charters, from perhaps busting them up into a dozen different companies or over a 3- to 5-year period totally privatizing them?

Mr. BERNANKE. There are certainly a number of different possibilities ranging from outright nationalization, to privatization, to breaking them up. In the near term, thinking about the needs of the housing market, I think the right solution is to keep them in their current form, but to provide very strong oversight that will assure adequate capital going forward.

Mr. HENSARLING. Thank you.

The CHAIRMAN. The gentleman from Minnesota.

Mr. ELLISON. Mr. Bernanke, can you tell what you think 30 years of wage stagnation, how that contributes to the current burgeoning debt that consumers are carrying today?

Mr. BERNANKE. Well, I don't think it is accurate there has been 30 years of wage stagnation. There has been a pretty substantial increase in real wages and in consumption over the last 30 years or so. Clearly, in the most recent past, energy prices, a slowing economy, and other factors have caused wages to stagnate, which is a serious problem.

Mr. ELLISON. Wages didn't stagnate in the late 1990's, but in the 1980's and 1970's.

Mr. BERNANKE. If we compare today to 1978, 30 years ago, you would see some significant rises, particularly if you look at a particular individual or family as opposed to the fact that you always have a shift and change.

Mr. ELLISON. What about average hourly wage? What did those numbers look like over the past, say, 30 years?

Mr. BERNANKE. I wouldn't want to take a wild guess.

Mr. ELLISON. You don't have to guess, because I think they have been pretty stagnant.

Mr. BERNANKE. They are not static. They have risen considerably over the last 30 years.

Mr. PERLMUTTER. Would the gentleman yield for 1 second?

Mr. ELLISON. Go ahead.

Mr. PERLMUTTER. You have a lot of very interesting graphs in your report, and one of these is on page 9, which shows the personal savings rate. I think that falls right in line with what the gentleman from Minnesota has been talking about, the fact that wages have been fairly steady, things have been going up, and people can't save.

Mr. Chairman, my question to you is how are we going to get people to start saving?

Mr. ELLISON. Reclaiming my time, that is where I am going with it. The fact is we have had recorded negative savings rates, and I believe that the stagnancy of wages—will you grant me 2000, will you agree with that, stagnant wages since then—I think that helps

to explain part of the problem that Americans are having right now. That is why we are doing the refis, the payday loans, the credit cards, things like that.

I just want to know from you to what degree does stagnant wages help contribute to the present situation even with regards to people getting into exotic mortgage products, credit cards, all of these loan products? Does it play a role, in your view?

Mr. BERNANKE. I think there are a lot of factors.

Mr. ELLISON. What role does stagnant wages play, Mr. Chairman?

Mr. BERNANKE. Obviously it is more difficult to save if your family income is not rising, I agree with that.

Mr. ELLISON. Doesn't the Fed have a mandate to try to promote full employment and keep inflation down? I mean, is that part of your mandate?

Mr. BERNANKE. Absolutely.

Mr. ELLISON. What are we going to do to increase real wages for people so they have enough money to buy the things they need as opposed to borrowing the money?

Mr. BERNANKE. I think that—and I have expressed this in detail in another context—the only long-term solution is to help those people who are not getting appropriate training and skills because those are the people who are being left out of the globalized economy. People who have high levels of skills have lots of opportunities and potential for high wages. That is beyond the power of monetary policy to do that.

Mr. ELLISON. Are you familiar with the livable wage movement?

Mr. BERNANKE. Yes.

Mr. ELLISON. Does it have the power to help improve wages for average working people?

Mr. BERNANKE. Again, this is somewhat out of my department, but I think I would rely on markets, plus give the workers the tools, the skills, the education they need, plus, if necessary, some assistance in getting retrained if they are displaced.

Mr. ELLISON. What do we do to help people save more money?

Mr. BERNANKE. This has been a long-term issue. Part of the reason that people didn't save for awhile, it is not relevant now, but for awhile people were letting their houses do their saving for them because they were looking at appreciation. Now they are under pressure because house prices are no longer rising, and they need to find savings under their current income.

In terms of policy measures to help people save, there are very few, if any, magic bullets for that. There have been some suggestions about having people opt out of 401(k) plans. Suppose we allow for a more widespread access to tax-preferred retirement plans and ask people to opt out rather than to opt in. There is some evidence that that helps people save more. It gets them to participate more.

The low saving problem, this is a low-saving country, and it is part of the reason we are borrowing a lot from abroad, it is a significant one, and I don't have an answer. Again, the Federal Reserve's mandate is to maintain employment, but we can't guarantee necessarily high-paying jobs. Those jobs have to come because—high-paying jobs have to come because workers have the skills, and the training, the education they need to get those kinds of jobs.

The CHAIRMAN. The gentleman from New Jersey.

Mr. GARRETT. I thank the chairman.

I thank you, Chairman Bernanke, for being with us today. I would like to begin by complimenting you for your foresight in warning this committee and actually all of Congress today, but your foresight in the past. You have been before this committee on numerous occasions speaking of the risk posed by the GSEs, by Fannie and Freddie. During those times, you spoke about their current form and their current regulatory framework, or maybe lack thereof, and the potential that that could bring somewhere down the road, potentially putting them at risk and also the taxpayer at risk as well. So I compliment you on that. And it was you and the President and the Secretary of Treasury has also emphasized this point repeatedly, and they have also emphasized the point that we have to move quickly as possible to address this issue of a comprehensive GSE reform.

Maybe it is because of that knowledge that we need to do something that the chairman and others, when regulatory reform had been going through in the 110th Congress, had added on as some of us call extraneous measures to the legislation above and beyond just the basic regulatory framework; the housing fund, the \$4 billion rehabilitation assistance. These add-ons have led to, I believe, the GSE reform legislation being slowed down not here in the House so much, but over in the Senate, where such extraneous matters sort of complicated the process of trying to get it through, when at the end of the day we simply wanted to have that proverbial world-class regulator in place. Some say if you had that done earlier on, maybe we wouldn't be having this discussion and other actions that we have done with this.

The chairman says the GSEs are struggling due to a lack of investor confidence. I believe if that is the case, passing a strong stand-alone, world-class regulator would be the best thing in Congress to address that. For that reason, later today I will be actually dropping in a strong stand-alone piece of legislation, without anything else on it, basically taken from the Senate compromise that mirrors the compromise on the GSE reform language that doesn't have anything else on it.

So my first question to you is, would that stand-alone bill, if we pass it through this week, since we have already passed that similar language and the Senate has as well—would that stand-alone, world-class regulator be important to get moving on this process to bring some relief to the GSEs and the overall economic market?

Mr. BERNANKE. Congressman, I really can't advise you on legislative tactics, but I would certainly say that getting a strong regulatory bill through in whatever context you can do it has always been important and now is particularly important, and I hope that you will act in an expeditious way.

Mr. GARRETT. One of the things that needs to be addressed through the regulator or however else is the capital requirements for the GSEs. As I understand it, it would be better had they begun to raise more capital. Fannie did, Freddie didn't, I guess, to some extent. But capital increase would be beneficial, correct, for the survivability of the GSEs? You are shaking your head yes.

Mr. BERNANKE. Yes.

Mr. GARRETT. Part of the issue, though, with the bills that we have that is going through potentially this week is that they have—some called it a tax, extraneous measures, whatever, that would potentially draw some of the revenue from the GSEs and use it for other purposes. My understanding—correct me if I am wrong—my understand would be that would impact potentially negatively upon their ability to do what is necessary, and that is to build their capital. Is that a correct understanding?

Mr. BERNANKE. Well, I have stayed away of this issue of the housing fund because it is part of the log-rolling process. I don't how exactly how it will play into the legislation. My main concern is the regulator be able to have bank-like capital powers.

Mr. GARRETT. I understand that. But if the regulators have all the powers, but some of the funds are being extracted from it to use it for other funds, could that have a detrimental effect on their ability to raise capital?

Mr. BERNANKE. It will affect their retained prospects, from that respect. Again, these are trade-offs that Congress has to make.

Mr. GARRETT. On the political side, my last question, last week I sent one question to you that I didn't get the answer to, and that is with regard to your powers under section 13. Are there any limitations on your powers going forward? You told us last week that you hoped this wouldn't happen again, but, of course, it didn't.

So would you use those powers in the future? Are there any limitations right now until we say don't do anything or put some restrictions on you to as to your powers under that section?

Mr. BERNANKE. I can tell you what the legislation says. Under Section 13.3 of the Federal Reserve Act, we can lend to an individual partnership or corporation if conditions are unusual and exigent, and other credit accommodation is not available. So there are some conditions on that, on 13.3, somewhat less restrictive in that respect, but the collateral can only be treasuries or agencies.

The CHAIRMAN. The gentleman from Colorado, I ask him to yield me 1 minute, if I can, because the gentleman from New Jersey's history is deeply flawed. The Affordable Housing Fund, which people are opposed to for philosophical reasons, for the slowing down of the GSEs, makes no historical sense. In the previous Congress, controlled by the Republicans, there was no Affordable Housing Fund attached to GSE reform, and the Senate didn't act on it. Any kind of historical experiment, you look for control. In fact, under the Republican Congress, GSE reform passed the House, it went to the Senate, and they didn't act on it.

By the way, the Senate bill, which the Senate Republicans put forward, did have an Affordable Housing Fund. They were prepared to accept it, and the bill didn't go forward. In fact, it is now under a Democratic Congress we are on the verge of passing legislation that the Republic Congress wouldn't pass. But to blame the Affordable Housing Fund ignores the history that in a previous Congress the House passed the bill, sent it to the Senate with an appropriate set of regulations, and the Senate didn't act on it under Republican rule, and it was not in any way, shape, or form the problem of the Affordable Housing Fund.

I thank the gentlemen from California.

Mr. GARRETT. Would the gentleman yield since he referenced my motives?

The CHAIRMAN. It is the gentleman from Colorado's time.

Mr. PERLMUTTER. Ten seconds.

Mr. GARRETT. Thank you. Since the gentleman did indicate with respect to my motives because I am ideologically driven on this, I am not ideologically driven on this, I just want to set the record straight, and the bills did pass in the House previously in the last Congress. It went to the Senate and was held up there by the Democrat opposition. What we need to do now is move as expeditiously as possible.

Mr. PERLMUTTER. I will take my time back.

The CHAIRMAN. The Republicans controlled the Senate, they didn't pass the bill, and it was not because of the Affordable Housing Trust Fund.

As to motives, I am surprised the gentleman takes exception to my noting that he is philosophically opposed to that.

Mr. PERLMUTTER. First, Mr. Chairman, just thank you for the time that you have given to us. Thank you for rolling up your sleeves, working with the Secretary of the Treasury, and working with our chairman to try to deal with a lot of tough problems you have out there. There is no minimizing what those problems are.

Like I said, I found a wealth of information in your report, some of it pretty disturbing. I don't know if you have it in front of you, but on page 25 of the report, there are several graphs there, and I just ask you about on the commercial paper it looks like everything is going along hunky-dory, and then boom, there is an earthquake in the summer of 2007. That same thing applies in the graph below it.

What happened in the summer of 2007 that just has caused this tremendous upheaval right now?

Mr. BERNANKE. Well, the media trigger was the refusal of a bank to allow withdrawals from the hedge funds because it said it couldn't value the assets. Basically, more broadly, it was about that time that losses related to subprime mortgages and CDOs and other structured products became apparent, and there was a real change in risk perception and in risk attitude at that juncture last August.

There were many off-balance-sheet vehicles, structured investment vehicles and so on that were holding CDOs, for example, that were financed by short-term money or commercial paper, creating a maturity mismatch. That was perceived to be fine as long as there was sufficient credit quality. Once the credit quality appeared to deteriorate, the overnight funders of those particular types of instruments withdrew, and they had either to be dissolved or taken off the balance sheet. So that whole class disappeared.

You will notice that conventional commercial paper, unsecured or commercial paper, issued by corporations was much more stable because that wasn't the new part. The part that was proven to have some real flaws is once we began to see credit losses from subprime and other types of structured—

Mr. PERLMUTTER. That was the time the market realized that housing prices weren't always going to go up. That is the way I

would describe it. A lot of it was just based on increased housing prices over time.

Mr. BERNANKE. Partly also the recognition that those losses were going to be greater than expected, and that these complicated structured credit products did not have as much cushion, as much coverage as the investors thought they did.

Mr. PERLMUTTER. Do you think we need more regulation within that market of creating these very complicated things?

Mr. BERNANKE. Certainly the kind of regulation we do have is at least two types. One is the bank regulators have been and already have considered increasing capital requirements and toughening up standards to allow these kind of vehicles. And then the accountants themselves also are looking at under what circumstances should you bring those things on the balance sheet, under what circumstances should they be kept separate.

The CHAIRMAN. Will the gentleman yield?

Mr. PERLMUTTER. I will yield.

The CHAIRMAN. I am going to recognize the gentleman from Connecticut and, in an act of unprecedented bipartisanship, leave him in charge while I go vote.

Mr. SHAYS. [presiding] You are safe, Mr. Chairman.

First, I want to thank you, Mr. Chairman, and Senator Dodd, and our ranking members. The House and Senate and the White House, both you, Mr. Bernanke, and Mr. Paulson, you are all trying to work together because I think we know this is a very serious time. I have some pride in seeing how Republicans and Democrats, both Chambers, and the White House and Congress are trying to work together.

I wrestle with, and I would like a fairly short answer, we keep talking about how we need to consume more. I just get the feeling like that is something we do too much of, and that we need to be investing and saving more. Just a quick comment about that.

Mr. BERNANKE. Certainly. There is a difference between the short run and the long run. In the short run, if consumption spending drops sharply, and there is no other type of demand to pick it up, then most of the saving will be dissipated because you will just have a slowing economy. What we need is an economy that is better balanced, less consumption, more investment, more exports. That should take place over time, but in a very short period of time, unless you get the other compensating sources of demand, you will just get a slowdown in the economy, which is part of what is happening.

Mr. SHAYS. So in the short run, we need consumption up?

Mr. BERNANKE. We are, in fact, getting a lot of benefit now from trade and exports. As we shift from producing for domestic consumers and towards producing for exports, that is the kind of direction that will in the longer term get us where we want to go.

Mr. SHAYS. When we dealt with Enron, it was clear what we were doing to countries that were under the 1933 and 1934 acts, but the GSEs weren't. Then there was an effort by me and others to put them under it. They voluntarily decided they would be under the 1934 act. Should they be under the 1933 act as well?

Mr. BERNANKE. I don't have a view on that as well. I leave that to the SEC.

Mr. SHAYS. Let me ask you in regards to energy, I think you have voiced an opinion, but I would like to clarify it a little bit. There are many of us who have said that we need to conserve more, we need alternative fuels, but that when we did that, that we should also be looking to increase supply.

You said that, I think, you favored a comprehensive approach. It is my sense then you want to see conservation, you want to see alternative fuels, and you want to see increased production, whether it is nuclear, whether it is some drilling offshore, maybe on land, but that you need to see the United States pick up its production and mining of oil. Would that be a fair statement?

Mr. BERNANKE. Congressman, there are always trade-offs Congress makes between environmental and other concerns and energy exploration. That is the prerogative of Congress to do that. But I think to the extent possible there is a multidimensional approach to this problem that high prices will, in fact, encourage those actions.

Mr. SHAYS. If the market sees a comprehensive approach, do you think it would have an immediate impact on the speculators and what they think will happen in the future and what they will price oil today?

Mr. BERNANKE. It is hard to judge how much and how fast, but it is the case that there is a forward-looking element to the futures markets, obviously. And to the extent that traders become more optimistic about the long-term supply and demand balance, it should be helpful even in the near term.

Mr. SHAYS. I am told that if we know when the bottom is to the housing market, there are plenty of resources that will come into it, but they need to know the bottom. There are some articles that I am starting to read that say we are getting very close to the bottom.

Have you voiced an opinion when I was out of the committee about that issue; and if so, what would it be?

Mr. BERNANKE. It is difficult to judge with any certainty. It looks as though the construction activity will begin to stop falling, will begin to bottom out probably later this year or early next year. The more difficult judgment is how much further house prices might decline. There still are significant overhangs of inventories of unsold new homes.

I agree absolutely, once there is some confidence that the market has found its level, that there will be considerable improvement in financial conditions and probably a stronger economy as well.

Mr. SHAYS. One last point, and that is on the whole issue of loans to students. If students aren't able to get loans this fall, Congress is going to hear it big time. What do you think is the most important thing we can do to provide liquidity to that market?

Mr. BERNANKE. Well, my understanding is that Congress has addressed that to some extent by allowing direct lending or backup lending.

Mr. SHAYS. I guess the question will be: Do you think it will work?

Mr. BERNANKE. That is a bit outside of my expertise, but I believe it is going to go a significant part of the way, and also some private-sector lenders will still participate in that market.

Mr. SHAYS. Thank you for your graciousness and for being here. I thank the chairman for allowing me to ask these questions.

With that, we will adjourn this hearing. Thank you very much, Mr. Bernanke.

[Whereupon, at 12:52 p.m., the hearing was adjourned.]

## **A P P E N D I X**

July 16, 2008

**Congressman Ron Paul**  
**Statement before the Financial Services Committee**  
**U.S. House of Representatives**  
**Humphrey Hawkins Hearing on Monetary Policy**  
July 16, 2008

Mr. Chairman,

Today we find ourselves on the verge of an economic crisis the likes of which the United States has not seen in decades. Our economy is very clearly in a recession, and every time someone tells us that the worst has passed, another serious event takes place, as we saw once again last week and early this week. Everyone now realizes that the situation is dire, yet either no one understands the cause behind the credit crisis, or no one is willing to take the necessary steps to ensure an orderly end to the crisis as possible. Instead, we hear talk of further bailouts. The Fed-brokered takeover of Bear Stearns, a supposed one-off incident, has now been joined by a potential bailout of the Government-Sponsored Enterprises, Fannie Mae and Freddie Mac.

The two GSE's have been disasters waiting to happen, as I and many others have warned over the years. It was bad enough that Fannie and Freddie were able to operate with significant advantages, such as lower borrowing costs and designation of their debt as government debt. Now, the implicit government backstop has turned out to be an explicit backstop, just as we feared. The Greenspan reflation of the economy after the dot-com bust pumped additional liquidity into an already-skewed housing market, leading to an unsustainable boom that from many accounts has only begun to unravel. With a current federal funds rate of two percent, and inflation at over four percent, the Fed is currently sowing the seeds for another economic bubble.

At the heart of this economic malaise is the Fed's poor stewardship of the dollar. The cause of the dollar's demise is not the result of a purely psychological response to public statements on US dollar policy, but is rather a reaction to a massive increase in the money supply brought about by the Federal Reserve's loose monetary policy. The policies that led to hemorrhaging of gold during the 1960's and the eventual closing of the gold standard are the same policies that are leading to the dollar's decline in international currency markets today. Foreign governments no longer wish to hold depreciating dollars, and would prefer to hold stronger currencies such as the euro. Foreign investors no longer wish to hold underperforming dollars, and seek to hold better-performing assets such as ports and beer companies.

Every government bailout or promise thereof leads to moral hazard, the likelihood that market actors will take ever riskier actions with the belief that the federal government will bail them out. Bear Stearns was bailed out, Fannie and Freddie will be bailed out, but where will the line be drawn? The precedent has been established and the taxpayers will end up footing the bill in these cases, but the federal government and the Federal Reserve lack the resources to bail out every firm that is deemed "too big to fail." Decades of loose monetary policy will lead to a financial day of reckoning, and bailouts, liquidity injections, and lowering of the federal funds rate will only delay the inevitable and ensure that the final correction will be longer and more severe than it otherwise would. For the sake of the economy, I urge my colleagues to resist the temptation to give in to political expediency, and to oppose loose monetary policy and any further bailouts.

For release on delivery  
10:00 a.m. EDT  
July 16, 2008

Statement of  
Ben S. Bernanke  
Chairman  
Board of Governors of the Federal Reserve System  
before the  
Committee on Financial Services  
U.S. House of Representatives

July 16, 2008

Chairman Frank, Ranking Member Bachus, and members of the Committee, I am pleased to present the Federal Reserve's *Monetary Policy Report to the Congress*.

The U.S. economy and financial system have confronted some significant challenges thus far in 2008. The contraction in housing activity that began in 2006 and the associated deterioration in mortgage markets that became evident last year have led to sizable losses at financial institutions and a sharp tightening in overall credit conditions. The effects of the housing contraction and of the financial headwinds on spending and economic activity have been compounded by rapid increases in the prices of energy and other commodities, which have sapped household purchasing power even as they have boosted inflation. Against this backdrop, economic activity has advanced at a sluggish pace during the first half of this year, while inflation has remained elevated.

Following a significant reduction in its policy rate over the second half of 2007, the Federal Open Market Committee (FOMC) eased policy considerably further through the spring to counter actual and expected weakness in economic growth and to mitigate downside risks to economic activity. In addition, the Federal Reserve expanded some of the special liquidity programs that were established last year and implemented additional facilities to support the functioning of financial markets and foster financial stability. Although these policy actions have had positive effects, the economy continues to face numerous difficulties, including ongoing strains in financial markets, declining house prices, a softening labor market, and rising prices of oil, food, and some other commodities. Let me now turn to a more detailed discussion of some of these key issues.

Developments in financial markets and their implications for the macroeconomic outlook have been a focus of monetary policy makers over the past year. In the second half of 2007, the deteriorating performance of subprime mortgages in the United States triggered turbulence in

domestic and international financial markets as investors became markedly less willing to bear credit risks of any type. In the first quarter of 2008, reports of further losses and write-downs at financial institutions intensified investor concerns and resulted in further sharp reductions in market liquidity. By March, many dealers and other institutions, even those that had relied heavily on short-term secured financing, were facing much more stringent borrowing conditions.

In mid-March, a major investment bank, The Bear Stearns Companies, Inc., was pushed to the brink of failure after suddenly losing access to short-term financing markets. The Federal Reserve judged that a disorderly failure of Bear Stearns would pose a serious threat to overall financial stability and would most likely have significant adverse implications for the U.S. economy. After discussions with the Securities and Exchange Commission and in consultation with the Treasury, we invoked emergency authorities to provide special financing to facilitate the acquisition of Bear Stearns by JPMorgan Chase & Co. In addition, the Federal Reserve used emergency authorities to establish two new facilities to provide backstop liquidity to primary dealers, with the goals of stabilizing financial conditions and increasing the availability of credit to the broader economy.<sup>1</sup> We have also taken additional steps to address liquidity pressures in the banking system, including a further easing of the terms for bank borrowing at the discount window and increases in the amount of credit made available to banks through the Term Auction Facility. The FOMC also authorized expansions of its currency swap arrangements with the European Central Bank and the Swiss National Bank to facilitate increased dollar lending by those institutions to banks in their jurisdictions.

These steps to address liquidity pressures coupled with monetary easing seem to have been helpful in mitigating some market strains. During the second quarter, credit spreads

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<sup>1</sup> Primary dealers are financial institutions that trade in U.S. government securities with the Federal Reserve Bank of New York. On behalf of the Federal Reserve System, the New York Fed's Open Market Desk engages in the trades to implement monetary policy.

generally narrowed, liquidity pressures ebbed, and a number of financial institutions raised new capital. However, as events in recent weeks have demonstrated, many financial markets and institutions remain under considerable stress, in part because the outlook for the economy, and thus for credit quality, remains uncertain. In recent days, investors became particularly concerned about the financial condition of the government-sponsored enterprises (GSEs), Fannie Mae and Freddie Mac. In view of this development, and given the importance of these firms to the mortgage market, the Treasury announced a legislative proposal to bolster their capital, access to liquidity, and regulatory oversight. As a supplement to the Treasury's existing authority to lend to the GSEs and as a bridge to the time when the Congress decides how to proceed on these matters, the Board of Governors authorized the Federal Reserve Bank of New York to lend to Fannie Mae and Freddie Mac, should that become necessary. Any lending would be collateralized by U.S. government and federal agency securities. In general, healthy economic growth depends on well-functioning financial markets. Consequently, helping the financial markets to return to more normal functioning will continue to be a top priority of the Federal Reserve.

I turn now to current economic developments and prospects. The economy has continued to expand, but at a subdued pace. In the labor market, private payroll employment has declined this year, falling at an average pace of 94,000 jobs per month through June. Employment in the construction and manufacturing sectors has been particularly hard hit, although employment declines in a number of other sectors are evident as well. The unemployment rate has risen and now stands at 5-1/2 percent.

In the housing sector, activity continues to weaken. Although sales of existing homes have been about unchanged this year, sales of new homes have continued to fall, and inventories of unsold new homes remain high. In response, homebuilders continue to scale back the pace of

housing starts. Home prices are falling, particularly in regions that experienced the largest price increases earlier this decade. The declines in home prices have contributed to the rising tide of foreclosures; by adding to the stock of vacant homes for sale, these foreclosures have, in turn, intensified the downward pressure on home prices in some areas.

Personal consumption expenditures have advanced at a modest pace so far this year, generally holding up somewhat better than might have been expected given the array of forces weighing on household finances and attitudes. In particular, with the labor market softening and consumer price inflation elevated, real earnings have been stagnant so far this year; declining values of equities and houses have taken their toll on household balance sheets; credit conditions have tightened; and indicators of consumer sentiment have fallen sharply. More positively, the fiscal stimulus package is providing some timely support to household incomes. Overall, consumption spending seems likely to be restrained over coming quarters.

In the business sector, real outlays for equipment and software were about flat in the first quarter of the year, and construction of nonresidential structures slowed appreciably. In the second quarter, the available data suggest that business fixed investment appears to have expanded moderately. Nevertheless, surveys of capital spending plans indicate that firms remain concerned about the economic and financial environment, including sharply rising costs of inputs and indications of tightening credit, and they are likely to be cautious with spending in the second half of the year. However, strong export growth continues to be a significant boon to many U.S. companies.

In conjunction with the June FOMC meeting, Board members and Reserve Bank presidents prepared economic projections covering the years 2008 through 2010. On balance, most FOMC participants expected that, over the remainder of this year, output would expand at a pace appreciably below its trend rate, primarily because of continued weakness in housing

markets, elevated energy prices, and tight credit conditions. Growth is projected to pick up gradually over the next two years as residential construction bottoms out and begins a slow recovery and as credit conditions gradually improve. However, FOMC participants indicated that considerable uncertainty surrounded their outlook for economic growth and viewed the risks to their forecasts as skewed to the downside.

Inflation has remained high, running at nearly a 3-1/2 percent annual rate over the first five months of this year as measured by the price index for personal consumption expenditures. And, with gasoline and other consumer energy prices rising in recent weeks, inflation seems likely to move temporarily higher in the near term.

The elevated level of overall consumer inflation largely reflects a continued sharp run-up in the prices of many commodities, especially oil but also certain crops and metals.<sup>2</sup> The spot price of West Texas intermediate crude oil soared about 60 percent in 2007 and, thus far this year, has climbed an additional 50 percent or so. The price of oil currently stands at about five times its level toward the beginning of this decade. Our best judgment is that this surge in prices has been driven predominantly by strong growth in underlying demand and tight supply conditions in global oil markets. Over the past several years, the world economy has expanded at its fastest pace in decades, leading to substantial increases in the demand for oil. Moreover, growth has been concentrated in developing and emerging market economies, where energy consumption has been further stimulated by rapid industrialization and by government subsidies that hold down the price of energy faced by ultimate users.

On the supply side, despite sharp increases in prices, the production of oil has risen only slightly in the past few years. Much of the subdued supply response reflects inadequate

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<sup>2</sup> The dominant role of commodity prices in driving the recent increase in inflation can be seen by contrasting the overall inflation rate with the so-called core measure of inflation, which excludes food and energy prices. Core inflation has been fairly steady this year at an annual rate of about 2 percent.

investment and production shortfalls in politically volatile regions where large portions of the world's oil reserves are located. Additionally, many governments have been tightening their control over oil resources, impeding foreign investment and hindering efforts to boost capacity and production. Finally, sustainable rates of production in some of the more secure and accessible oil fields, such as those in the North Sea, have been declining. In view of these factors, estimates of long-term oil supplies have been marked down in recent months. Long-dated oil futures prices have risen along with spot prices, suggesting that market participants also see oil supply conditions remaining tight for years to come.

The decline in the foreign exchange value of the dollar has also contributed somewhat to the increase in oil prices. The precise size of this effect is difficult to ascertain, as the causal relationships between oil prices and the dollar are complex and run in both directions. However, the price of oil has risen significantly in terms of all major currencies, suggesting that factors other than the dollar, notably shifts in the underlying global demand for and supply of oil, have been the principal drivers of the increase in prices.

Another concern that has been raised is that financial speculation has added markedly to upward pressures on oil prices. Certainly, investor interest in oil and other commodities has increased substantially of late. However, if financial speculation were pushing oil prices above the levels consistent with the fundamentals of supply and demand, we would expect inventories of crude oil and petroleum products to increase as supply rose and demand fell. But in fact, available data on oil inventories show notable declines over the past year. This is not to say that useful steps could not be taken to improve the transparency and functioning of futures markets, only that such steps are unlikely to substantially affect the prices of oil or other commodities in the longer term.

Although the inflationary effect of rising oil and agricultural commodity prices is evident in the retail prices of energy and food, the extent to which the high prices of oil and other raw materials have been passed through to the prices of non-energy, non-food finished goods and services seems thus far to have been limited. But with businesses facing persistently higher input prices, they may attempt to pass through such costs into prices of final goods and services more aggressively than they have so far. Moreover, as the foreign exchange value of the dollar has declined, rises in import prices have put greater upward pressure on business costs and consumer prices. In their economic projections for the June FOMC meeting, monetary policy makers marked up their forecasts for inflation during 2008 as a whole. FOMC participants continue to expect inflation to moderate in 2009 and 2010, as slower global growth leads to a cooling of commodity markets, as pressures on resource utilization decline, and as longer-term inflation expectations remain reasonably well anchored. However, in light of the persistent escalation of commodity prices in recent quarters, FOMC participants viewed the inflation outlook as unusually uncertain and cited the possibility that commodity prices will continue to rise as an important risk to the inflation forecast. Moreover, the currently high level of inflation, if sustained, might lead the public to revise up its expectations for longer-term inflation. If that were to occur, and those revised expectations were to become embedded in the domestic wage-and price-setting process, we could see an unwelcome rise in actual inflation over the longer term. A critical responsibility of monetary policy makers is to prevent that process from taking hold.

At present, accurately assessing and appropriately balancing the risks to the outlook for growth and inflation is a significant challenge for monetary policy makers. The possibility of higher energy prices, tighter credit conditions, and a still-deeper contraction in housing markets all represent significant downside risks to the outlook for growth. At the same time, upside risks

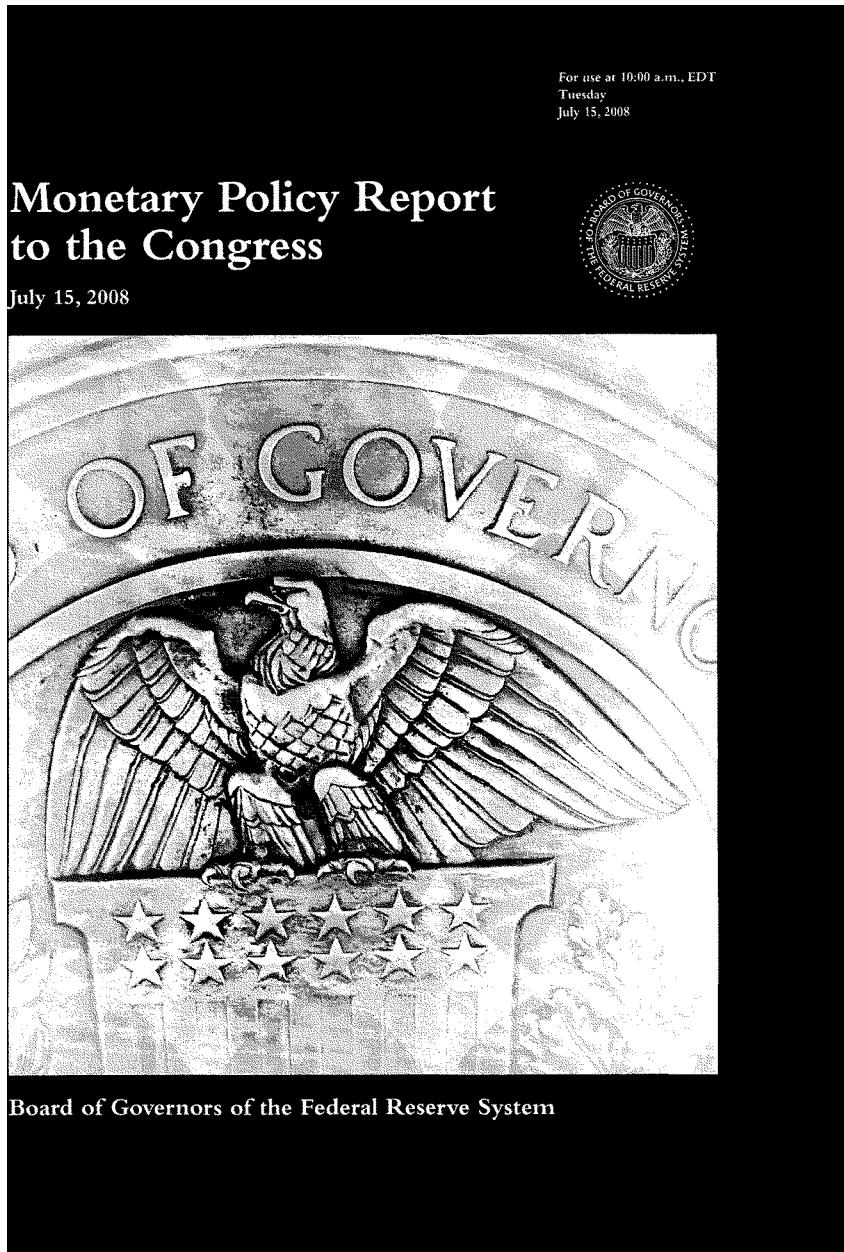
to the inflation outlook have intensified lately, as the rising prices of energy and some other commodities have led to a sharp pickup in inflation and some measures of inflation expectations have moved higher. Given the high degree of uncertainty, monetary policy makers will need to carefully assess incoming information bearing on the outlook for both inflation and growth. In light of the increase in upside inflation risk, we must be particularly alert to any indications, such as an erosion of longer-term inflation expectations, that the inflationary impulses from commodity prices are becoming embedded in the domestic wage- and price-setting process.

I would like to conclude my remarks by providing a brief update on some of the Federal Reserve's actions in the area of consumer protection. At the time of our report last February, I described the Board's proposal to adopt comprehensive new regulations to prohibit unfair or deceptive practices in the mortgage market, using our authority under the Home Ownership and Equity Protection Act of 1994. After reviewing the more-than 4,500 comment letters we received on the proposed rules, the Board approved the final rules on Monday.

The new rules apply to all types of mortgage lenders and will establish lending standards aimed at curbing abuses while preserving responsible subprime lending and sustainable homeownership. The final rules prohibit lenders from making higher-priced loans without due regard for consumers' ability to make the scheduled payments and require lenders to verify the income and assets on which they rely when making the credit decision. Also, for higher-priced loans, lenders now will be required to establish escrow accounts so that property taxes and insurance costs will be included in consumers' regular monthly payments. The final rules also prohibit prepayment penalties for higher-priced loans in cases in which the consumer's payment can increase during the first few years and restrict prepayment penalties on other higher-priced loans. Other measures address the coercion of appraisers, servicer practices, and other issues. We believe the new rules will help to restore confidence in the mortgage market.

In May, working jointly with the Office of Thrift Supervision and the National Credit Union Administration, the Board issued proposed rules under the Federal Trade Commission Act to address unfair or deceptive practices for credit card accounts and overdraft protection plans. Credit cards provide a convenient source of credit for many consumers, but the terms of credit card loans have become more complex, which has reduced transparency. Our consumer testing has persuaded us that disclosures alone cannot solve this problem. Thus, the Board's proposed rules would require card issuers to alter their practices in ways that will allow consumers to better understand how their own decisions and actions will affect their costs. Card issuers would be prohibited from increasing interest rates retroactively to cover prior purchases except under very limited circumstances. For accounts having multiple interest rates, when consumers seek to pay down their balance by paying more than the minimum, card issuers would be prohibited from maximizing interest charges by applying excess payments to the lowest rate balance first. The proposed rules dealing with bank overdraft services seek to give consumers greater control by ensuring that they have ample opportunity to opt out of automatic payments of overdrafts. The Board has already received more than 20,000 comment letters in response to the proposed rules.

Thank you. I would be pleased to take your questions.



# Monetary Policy Report to the Congress



Submitted pursuant to section 2B  
of the Federal Reserve Act

July 15, 2008



Board of Governors of the Federal Reserve System

## Letter of Transmittal



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BOARD OF GOVERNORS OF THE  
FEDERAL RESERVE SYSTEM

Washington, D.C., July 15, 2008

THE PRESIDENT OF THE SENATE  
THE SPEAKER OF THE HOUSE OF REPRESENTATIVES

The Board of Governors is pleased to submit its *Monetary Policy Report to the Congress* pursuant to section 2B of the Federal Reserve Act.

Sincerely,

A handwritten signature in black ink, appearing to read "Ben Bernanke".

Ben Bernanke, Chairman

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## Part 1 Overview: Monetary Policy and the Economic Outlook

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The U.S. economy remained sluggish in the first half of 2008, and steep increases in commodity prices boosted consumer price inflation. The housing market continued to contract, weighing on overall economic activity. Against a backdrop of mounting losses incurred by major financial institutions, financial market conditions deteriorated sharply further toward the end of the first quarter—a development that threatened to severely impair the functioning of the overall financial system and to hinder economic growth. In response, the Federal Reserve undertook a number of significant actions to address liquidity pressures faced by banks and other financial institutions, thereby augmenting the liquidity-enhancing measures implemented in the second half of 2007. Taken together, these measures fostered some improvement in the functioning of financial markets, but considerable strains persist. In view of the implications of the substantial reduction in credit availability and the continuing decline in housing activity for the economic outlook, the Federal Open Market Committee (FOMC) further eased the stance of monetary policy. After cutting the target federal funds rate 100 basis points in the second half of 2007, the FOMC reduced rates another 225 basis points over the first four months of 2008. The further easing of policy was seen as consistent with fostering price stability over time, given the Committee's expectation that a flattening-out of energy prices and increasing economic slack would damp inflationary pressures.

The most recent economic projections of participants in FOMC meetings (Board members and Reserve Bank presidents) are presented in part 4 of this report. According to these projections, the economy is expected to expand slowly over the rest of this year. FOMC participants anticipate a gradual strengthening of economic growth over coming quarters as the lagged effects of past monetary policy actions, amid gradually improving financial market conditions, begin to provide additional lift to spending and as housing activity begins to stabilize. FOMC participants marked up their forecasts of inflation for 2008 as a whole, reflecting the upward pressure on inflation from rising commodity prices. However, with longer-run inflation expectations antici-

pated to remain reasonably well anchored, with futures markets indicating that commodity prices are expected to flatten out, and with pressures on resources likely to ease, inflation is projected to moderate appreciably in 2009. FOMC participants indicate that considerable uncertainty surrounds the outlook for economic growth and that they see the risks around that outlook as skewed to the downside. They also see prospects for inflation as unusually uncertain, and they view the risks surrounding their forecasts for inflation as skewed to the upside.

In the second half of 2007, the deteriorating performance of subprime mortgages in the United States triggered a reassessment of credit and liquidity risks across a broad range of assets, leading to widespread strains and turbulence in domestic and international financial markets. During the first quarter of 2008, reports of further losses and write-downs at major financial institutions intensified concerns about credit and liquidity risks and resulted in a further sharp reduction of market liquidity. Risk spreads—particularly for structured credit products—widened dramatically, and securitization activity all but shut down in a number of markets. By March, many securities dealers and other institutions that had relied heavily on short-term financing in markets for repurchase agreements were facing much more stringent borrowing conditions.

In mid-March, a major investment bank, The Bear Stearns Companies, Inc., was pushed to the brink of failure after suddenly losing access to short-term financing markets. The Federal Reserve judged that a disorderly failure of Bear Stearns would have threatened overall financial stability and would most likely have had significant adverse implications for the U.S. economy. After discussions with the Securities and Exchange Commission and in consultation with the Treasury, the Federal Reserve determined that it should invoke emergency authorities to provide special financing to facilitate the acquisition of Bear Stearns by JPMorgan Chase & Co. The Federal Reserve also used emergency authorities to establish the Term Securities Lending Facility and the Primary Dealer Credit Facility to support the liquidity of primary dealers and financial

markets more generally, which would bolster the availability of credit to the overall economy.<sup>1</sup> (See the box entitled "The Federal Reserve's Liquidity Operations" in part 2, page 26.) Other steps taken by the Federal Reserve in recent months to address strains in financial markets include a further easing in the terms for bank borrowing at the discount window and an increase in the amount of credit made available to banks through the Term Auction Facility. The FOMC also authorized increases in its currency swap arrangements with the European Central Bank and the Swiss National Bank to facilitate an expansion of dollar lending operations to banks in their jurisdictions.

Over the second quarter, financial market conditions improved somewhat—credit spreads generally narrowed, liquidity pressures ebbed, and financial institutions made progress in raising new capital. Still, asset prices continue to be volatile, and many financial markets and institutions remain under considerable stress. Very recently, the share prices of Fannie Mae and Freddie Mac dropped sharply on investor concerns about their financial condition and capital position. The Treasury announced a legislative initiative to bolster the capital, access to liquidity, and regulatory oversight of the government-sponsored enterprises (GSEs). As a supplement to the Treasury's existing authority to lend to the GSEs, the Board of Governors established a temporary arrangement that allows the Federal Reserve to extend credit to Fannie Mae and Freddie Mac, if necessary.

The sluggish pace of economic activity in the first half of 2008 was accompanied by a further deterioration in the labor market. Private-sector payroll employment declined at an average monthly pace of 94,000, and the unemployment rate rose to 5½ percent. Moreover, real labor income appears to have been flat in the first half of the year. Although wages rose in nominal terms, the

purchasing power of those nominal gains was eroded by the rapid increases in consumer prices. Declining employment, stagnant real wages, and lower equity and home values weighed on consumer sentiment and spending. In addition, amid falling house prices and rising foreclosures, activity in the housing sector continued to decrease. The resulting softness in business sales and profits also made the environment for capital spending less hospitable. The weakness in overall domestic demand was partly offset by strong growth of exports, which were supported by a sustained expansion of foreign activity and a lower dollar.

The substantial further rise this year in the prices of many commodities, especially oil and agricultural products, largely reflected strong growth of physical demand that outstripped supply in these markets. Although weakening economic activity and rising prices have tempered demand for commodities in many industrialized nations, demand has continued to grow in booming emerging market economies. However, supplies of commodities have generally not kept pace for a variety of reasons, including political tensions in some oil-producing nations, higher input costs, lags in the development of new capacity, and more recently, floods in the Midwest. To varying degrees, the resulting increases in materials prices have passed through into retail prices of energy, food, and some other items.

Overall consumer price inflation, as measured by the price index for personal consumption expenditures, remained elevated in the first half of 2008, largely because of the sharp increases in the prices of many commodities. The decline in the foreign exchange value of the dollar has boosted import prices more generally and thus has also put upward pressure on inflation. Nonetheless, increases in labor costs and core consumer prices (which exclude the direct effects of movements in energy and food prices) have remained moderate. The rapid advance in overall prices has boosted some measures of inflation expectations: Near-term inflation expectations have risen considerably in recent months, and some indicators of longer-term inflation expectations have also moved up—a development that will require close monitoring in the period ahead.

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1. Primary dealers are firms that trade in U.S. government securities with the Federal Reserve Bank of New York. On behalf of the Federal Reserve System, the New York Fed's Open Market Desk engages in such trades to implement monetary policy.

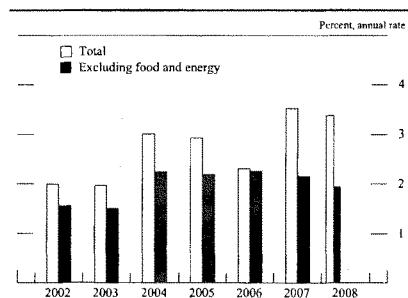
## Part 2

### Recent Economic and Financial Developments

The growth of economic activity, which slowed sharply in the fourth quarter of 2007, remained subpar in the first half of 2008. Although the restraint on activity late in 2007 was concentrated in the housing sector, spillovers to other areas of the economy began to show through more clearly in the first half of 2008. Meanwhile, consumer price inflation has remained elevated this year, primarily because of steep increases in the prices of many commodities. Probably in response to the sizable rise in headline price indexes, some indicators of longer-term inflation expectations have risen in recent months. However, increases in labor costs and core prices have been fairly stable, reflecting in part the softening in aggregate activity.

Financial market stress that had developed over the second half of last year intensified in the first quarter of this year. Increased concerns about the possibility of a global economic slowdown and a generalized flight from riskier assets contributed to sharply wider risk spreads, heightened volatility, and impaired liquidity across a range of markets. The Federal Reserve responded to these developments and their potential adverse implications for the economy by aggressively easing the stance of monetary policy and by taking a number of steps to bolster liquidity and enhance market functioning. Conditions in financial markets improved

Change in the chain-type price index for personal consumption expenditures, 2002–08

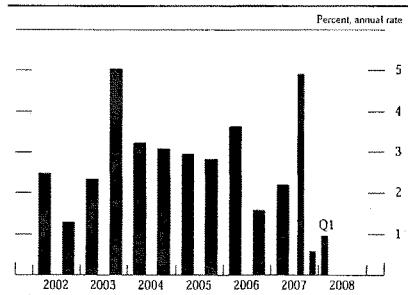


NOTE: Through 2007, change is from December to December; for 2008, change is from December to May.

SOURCE: Department of Commerce, Bureau of Economic Analysis.

somewhat in the wake of these actions, but significant strains remain. With credit conditions tight, equity and home values falling, and rapidly rising commodity prices boosting costs and consumer prices, growth of household and business spending appears to have been sluggish over the first half of the year.

Change in real gross domestic product, 2002–08



NOTE: Here and in subsequent figures, except as noted, change for a given period is measured to its final quarter from the final quarter of the preceding period.

SOURCE: Department of Commerce, Bureau of Economic Analysis.

#### The Household Sector

##### *Residential Investment and Finance*

Housing demand, residential construction, and home prices have all continued to fall so far this year. Following a decline at an annual rate of 43 percent in the second half of 2007, sales of new homes decreased at an annual rate of 32 percent in the first five months of 2008. However, sales of single-family existing homes, which dropped at an annual rate of 26 percent in the second half of last year, have been about unchanged this year. Moreover, pending home sales, which provide a glimpse of the pace of existing home sales in the months ahead, on net leveled out in the spring, hinting at some stabilization in transactions in the resale market. Still, for the overall housing sector, the challenging mortgage lending environment and the concerns of

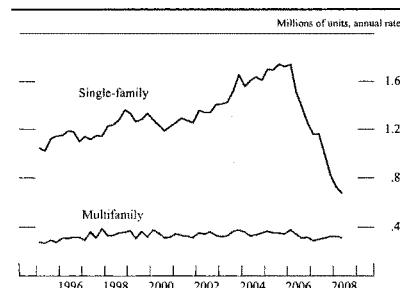
prospective homebuyers about further declines in house prices are likely continuing to depress housing demand.

As new home sales have continued to decline, homebuilders have struggled to work down their substantial overhang of unsold houses. As a consequence, residential construction activity has been pared further this year. In the single-family housing sector, new units were started at an annual rate of 674,000 in May—down more than 13 percent this year and roughly 60 percent since the peak reached in the first quarter of 2006. Despite these deep production cuts, the stock of unsold homes has moved down only 20 percent from its record high in early 2006. When evaluated relative to the three-month average pace of sales, the months' supply of unsold new homes has continued to rise and stood at 10½ months in May. In the multifamily sector, starts averaged an annual rate of about 320,000 units during the first five months of 2008, a level of activity at the lower end of its range in the past several years. All told, the decline in residential investment trimmed the growth rate of real gross domestic product (GDP) about 1 percentage point in the first quarter of 2008 and appears to have held down the second-quarter growth rate by about the same amount.

House prices also have continued to fall. The monthly price index published by the Office of Federal Housing Enterprise Oversight dropped at a 6 percent annual rate in the first four months of 2008 (the latest available data), a slightly faster rate of decline than in the second half of 2007.<sup>2</sup> In May, the average price of existing

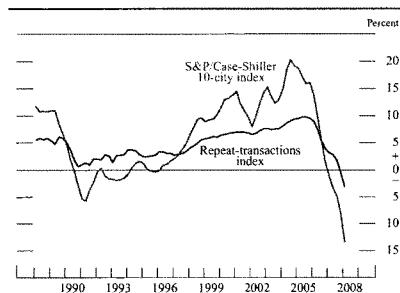
2. This index is the purchase-only version of the repeat-transactions price index for existing single-family homes published by the Office of Federal Housing Enterprise Oversight.

#### Private housing starts, 1995–2008



NOTE: The data are quarterly and extend through 2008:Q2; the readings for 2008:Q2 are the averages for April and May.  
SOURCE: Department of Commerce, Bureau of the Census.

#### Change in prices of existing single-family houses, 1988–2008



NOTE: The data are quarterly and extend through 2008:Q1; changes are from one year earlier. For the years preceding 1991, the repeat-transaction index includes appraisals associated with mortgage refinancings; beginning in 1991, it includes purchase transactions only. The S&P/Case-Shiller index reflects all arm's-length sales transactions in the metropolitan areas of Boston, Chicago, Denver, Las Vegas, Los Angeles, Miami, New York, San Diego, San Francisco, and Washington, D.C.

SOURCE: For repeat transactions, Office of Federal Housing Enterprise Oversight; for S&P/Case-Shiller, Chicago Mercantile Exchange.

single-family homes sold—which does not control for changes in the mix of houses sold but is available on a more timely basis—was about 7½ percent below that of a year earlier. Although lower prices should eventually help bolster housing demand, survey and anecdotal reports suggest that expectations of further house price declines are quite prevalent, a consideration that may make potential buyers reluctant to purchase homes until prices show signs of stabilizing.

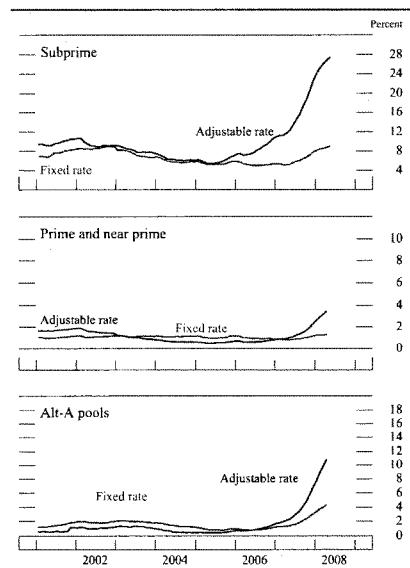
The rising volume of foreclosures likely has contributed to falling house prices. Continuing the upward trend that began in late 2006, about 550,000 loans began the foreclosure process in the first quarter of 2008—more than double the average quarterly rate from 2003 to 2005. This rise in foreclosure starts will increase the supply of houses for sale unless borrowers can make up the missed payments or arrange with the lenders or mortgage servicers to have their loans modified.<sup>3</sup> Lenders and mortgage servicers have increasingly been working with borrowers to modify loans to allow borrowers to remain in their homes. However, some borrowers may not be able to afford even reduced monthly payments, and other borrowers may not wish to keep their properties in an environment of falling house prices. Thus, the share of foreclosure starts that

3. A loan may be modified by reducing the principal balance, reducing the interest rate, or extending the term so as to make monthly payments more affordable.

ultimately result in the loss of a home seems likely to be higher in the current episode than customarily has been the case. (See the box entitled "Recent Federal Reserve Initiatives to Address Problems in the Mortgage Market" on page 6.)

The rates of delinquency continued to rise in the first few months of 2008 across all categories of mortgage loans. Problems remained especially severe for subprime loans. However, the growth rate of subprime delinquencies has slowed this year, while that of prime and near-prime delinquencies—particularly on adjustable-rate loans—has picked up. Credit quality is strongly related to the origination date of mortgage loans, with loans originated in 2006 and 2007 much more likely to experience delinquency and default than loans originated in previous years. The poorer performance of the more recent loan vintages reflects a general deterioration in underwriting standards through early 2007 and the decline in house prices since 2007, which has increased the occurrence of negative homeowner

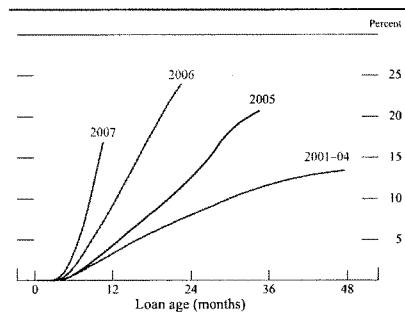
#### Mortgage delinquency rates, 2001–08



NOTE: The data are monthly. For subprime, prime, and near-prime mortgages, the data extend through April 2008; for mortgages in alt-A pools, which are a mix of prime, near prime, and subprime mortgages, the data extend through March 2008. Delinquency rate is the percent of loans 90 days or more past due or in foreclosure.

SOURCE: First American LoanPerformance.

Cumulative defaults on subprime 2/28 loans, by year of origination, 2001–07



NOTE: Figure is based on monthly data through March 2008. Each curve represents the fraction of loans originated in the indicated year that had defaulted by the indicated loan age; for example, roughly 8 percent of all loans originated sometime in the years 2001 to 2004 had defaulted by the time they were 24 months old. The last 9 points of the curves for 2005 through 2007 are based on incomplete data. A 2/28 loan is a 30-year loan with a fixed rate for the first 2 years and an adjustable rate for the remaining 28 years.

SOURCE: Staff calculations based on data from First American LoanPerformance.

equity for houses purchased near the peak of the real estate market.

New subprime mortgage loans remained largely unavailable in the first half of 2008, and borrowers with higher credit risk had to turn to government guarantee programs, such as that of the Federal Housing Administration, to obtain mortgage loans. The availability of prime mortgage credit has been held down by a further tightening of lending standards at many commercial banks, according to the Senior Loan Officer Opinion Survey on Bank Lending Practices conducted in January and April. Securitization of mortgages by the government-sponsored enterprises (GSEs), Fannie Mae and Freddie Mac, was robust through April, although the GSEs tightened standards and increased guarantee fees. For prime loans, interest rates on conforming fixed-rate mortgages were up slightly, on net, over the first half of 2008 after declining moderately late last year.<sup>4</sup> Rates on conforming adjustable-rate mortgages dropped in January but have since reversed a portion of that decline. Offered rates on jumbo fixed-rate loans—which ran up in the second half of last year as the securitization

4. Conforming mortgages are those eligible for purchase by Fannie Mae and Freddie Mac; they must be equivalent in risk to a prime mortgage with an 80 percent loan-to-value ratio, and they cannot exceed the conforming loan limit.

### Recent Federal Reserve Initiatives to Address Problems in the Mortgage Market

The high rate of mortgage foreclosures is creating personal, economic, and social distress for many homeowners and communities. The Federal Reserve is collaborating with other regulators, community groups, policy organizations, financial institutions, and public officials to identify solutions to prevent unnecessary foreclosures and their negative effects. The Federal Reserve also has taken a number of regulatory and supervisory actions to reduce the likelihood of such problems in the future.

In 2007, the Federal Reserve and other banking agencies called on mortgage lenders and mortgage servicers to work closely with borrowers who are having difficulty meeting their mortgage payment obligations. Foreclosure cannot always be avoided, but prudent loan workouts and other loss-mitigation techniques that help troubled borrowers can be less costly to lenders than foreclosure.

The Federal Reserve's Homeownership and Mortgage Initiatives reflect a comprehensive strategy across the Federal Reserve System to provide information and outreach to prevent unnecessary foreclosures and to stabilize communities. Under these initiatives, the Federal Reserve has been providing community coalitions, counseling agencies, and others with detailed analyses identifying neighborhoods

at high risk of foreclosures. With this information, community leaders can target their scarce resources to borrowers in need of counseling and other interventions that may help prevent unnecessary foreclosures. One example of this effort is the online dynamic maps and data that illustrate nonprime loan conditions across the United States (available at [www.newyorkfed.org/mortgagelists](http://www.newyorkfed.org/mortgagelists)). In addition, community affairs offices across the Federal Reserve System have sponsored or cosponsored more than 75 events related to foreclosures since January 2007, reaching more than 5,800 attendees including lenders, counselors, community development specialists, and policymakers.

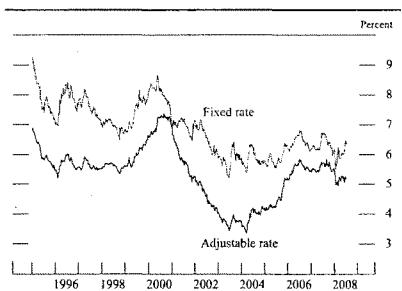
The Federal Reserve also is helping to address the challenges that foreclosed homes present, such as decreased home values and vacant properties that can deteriorate from neglect. Toward this end, the Federal Reserve entered into a partnership this spring with NeighborWorks America, a national nonprofit organization, to work together in identifying strategies to mitigate the effect of foreclosures and vacant homes on communities. In June 2007, the Federal Reserve began hosting a series of forums in several cities across the country to examine the effects that foreclosures have on neighborhoods in both strong and weak housing markets and to

(continued on next page)

market for such loans dried up—remained elevated in the first half of 2008, and spreads between rates offered on these loans and on conforming loans stayed unusually wide.<sup>5</sup> To support the market for larger loans, the Congress raised the conforming loan limit temporarily for 2008, which allowed the GSEs to back these mortgages. However, because the prepayment characteristics of jumbo mortgage borrowers are different from those of other borrowers, the GSEs and other market participants decided not to pool these "jumbo conforming" mortgages with other mortgages when creating mortgage-backed securities (MBS). As a result, the secondary market for such mortgages has thus far failed to thrive. Concerns expressed by public policymakers persuaded Fannie Mae and Freddie Mac to make great-

5. Jumbo mortgages are those that exceed the maximum size of a conforming loan; they are typically extended to borrowers with relatively strong credit histories.

Mortgage rates, 1995–2008



NOTE: The data, which are weekly and extend through July 9, 2008, are contract rates on 30-year mortgages.

SOURCE: Federal Home Loan Mortgage Corporation.

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assess the tools available to local communities to address the consequences of foreclosures.

The Federal Reserve is committed to fostering an environment that supports the homeownership goals of creditworthy borrowers with appropriate consumer protection and responsible lending practices. It is using its regulatory and supervisory authorities to help avoid future problems in mortgage markets. In coordination with other federal supervisory agencies and the Conference of State Bank Supervisors, the Federal Reserve issued principles-based guidance on specific types of adjustable-rate subprime mortgages in June 2007. The guidance is designed to help ensure that borrowers who choose an adjustable-rate mortgage get a loan that they can afford to repay and can refinance without prepayment penalty for a reasonable period before the first interest rate reset. The Federal Reserve issued similar guidance on nontraditional mortgages in 2006.

Strong uniform enforcement of the consumer protection regulations that govern mortgage lenders is critical to avoid future problems in mortgage markets. Together with other federal and state supervisory agencies, the Federal Reserve launched a pilot program to review consumer protection compliance and impose corrective or enforcement actions, as warranted, at selected

nondepository lenders with significant subprime mortgage operations.

In December 2007, the Board proposed new rules under the Home Ownership and Equity Protection Act to ban unfair and deceptive mortgage lending practices. The Board received about 4,500 comments on the proposal and, taking into consideration these comments, issued new rules in July. For consumers receiving higher-priced mortgages, the final rules prohibit lenders from extending credit without regard to a borrower's ability to repay, require lenders to verify income and assets they rely upon in making loans, require lenders to establish escrow accounts for taxes and insurance, and prohibit prepayment penalties unless certain conditions are met. In addition, the rules also are designed to curtail deceptive mortgage advertising and to ensure that consumers receive mortgage disclosures at a time when the information is likely to be most useful to them.

Finally, the Board also is undertaking a broad and rigorous review of the Truth in Lending Act, which involves extensive consumer testing of mortgage disclosure documents. Clearer and easier-to-understand disclosures should help consumers better evaluate the loans that are offered to them and thus make more-appropriate choices when financing their homes.

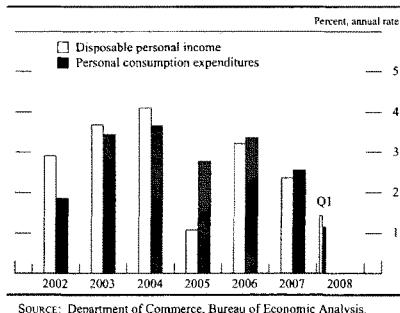
er efforts to jump-start trading in the market for jumbo conforming loans, and the GSEs have recently taken a variety of actions to encourage the development of that market.

The weakness in the housing market was associated with a sharp slowing in the growth of household mortgage debt to an annual rate of 3 percent in the first quarter of 2008, down from 6½ percent in 2007 and 11¼ percent in 2006. The available indicators suggest that mortgage debt likely slowed further in the second quarter.

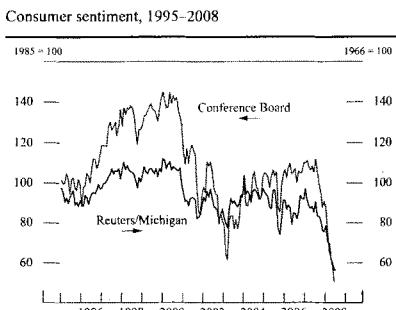
#### **Consumer Spending and Household Finance**

The growth rate of consumer spending slowed some in the first half of 2008 from its solid pace in the second half of 2007. The slowing reflected a number of restraining influences. The growth rate of real labor income has stepped down substantially since last sum-

Change in real income and consumption, 2002–08



mer as labor market conditions have weakened and as rising prices for food and energy have put a sizable



NOTE: The Conference Board data are monthly and extend through June 2008. The Reuters/University of Michigan data are monthly and extend through a preliminary estimate for July 2008.

SOURCE: The Conference Board and Reuters/University of Michigan Surveys of Consumers.

dent in consumers' purchasing power. At the same time, household wealth has been reduced by declining values of both equities and houses. In addition, borrowing at banks to finance outlays has become more difficult as terms and standards on consumer credit have been tightened. Although the tax rebates that households began receiving in the spring are likely cushioning these effects to some extent, consumers appear to be quite downbeat. Measures of consumer confidence, which had dropped sharply in the second half of 2007, plunged further in the first half of this year and now stand at or below the low levels reached in the early 1990s.

Real personal consumption expenditures (PCE) rose at a modest annual rate of 1 percent in the first quarter. The available data suggest that spending picked up in the second quarter, reportedly boosted by tax rebates. Spending on light motor vehicles was lackluster in the first half of the year, as high gasoline prices curbed demand for sport-utility vehicles and pickup trucks. Outlays for other types of goods fell slightly in the first quarter but appear to have turned back up in recent months. Spending on services has held up well in recent quarters.

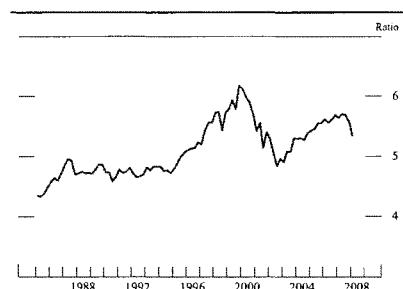
Following a sharp deceleration in the second half of last year, real labor income has been flat so far this year, as nominal wage gains have been eroded by rising consumer prices. Average hourly earnings, a measure of wages for production or nonsupervisory workers, rose at the same rate as the PCE price index in the five months through May; thus, wages were unchanged in

real terms. In the past couple of months, part of the strain on household incomes caused by the stagnation in real wages was likely alleviated temporarily by the tax rebates that were paid out in May and June. As a result of these rebates, growth in real disposable personal income (DPI)—that is, after-tax income adjusted for inflation—which was subpar in the fourth quarter of 2007 and the first quarter of 2008, likely jumped in the second quarter. Despite an increase in transfers reflecting the recently passed extension of unemployment insurance benefits, real DPI is likely to fall back in the third quarter as the disbursement of rebates slows considerably.

After several years of providing an impetus to spending, household wealth has been a negative influence this year. Changes in household net worth tend to influence consumer spending most heavily over a period of a year or two. Accordingly, the drop last year in the ratio of household net worth relative to income probably weighed on consumption outlays in the first half of 2008. Moreover, this year's declines in residential real estate values and in equity prices have exacerbated the situation. Flagging wealth has likely left households less inclined to raise their spending at a rate that exceeds income growth, and the personal saving rate has flattened out over the past few quarters. In May, the saving rate jumped to 5 percent, as the immediate effect of tax rebates in many households was to boost savings.

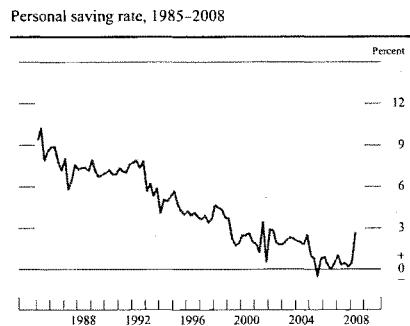
Overall household debt increased at an annual rate of about 3½ percent in the first quarter of 2008, a notable deceleration from the 6¾ percent advance in 2007. Household debt appears to have slowed further in the

Wealth-to-income ratio, 1985–2008



NOTE: The data are quarterly and extend through 2008:Q1. The wealth-to-income ratio is the ratio of household net worth to disposable personal income.

SOURCE: For net worth, Federal Reserve Board, flow of funds data; for income, Department of Commerce, Bureau of Economic Analysis.



NOTE: The data are quarterly and extend through 2008:Q2; the reading for 2008:Q2 is the average for April and May.  
SOURCE: Department of Commerce, Bureau of Economic Analysis.

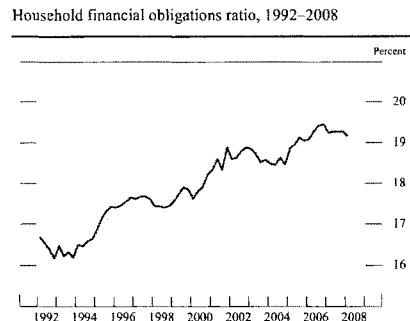
second quarter. Because the growth of household debt was slightly less than the growth in nominal DPI in the first quarter and interest rates on mortgage and consumer debt declined a bit, the ratio of financial obligations to DPI ticked down.

Consumer (nonmortgage) debt expanded at an annual rate of 5¾ percent in the first quarter, about the same pace as in 2007. Consumer debt growth held up despite a reported tightening of lending terms and standards at banks. In part, this pattern may reflect some substitution away from mortgage credit. Also, interest rates on auto loans and on credit cards generally declined in the

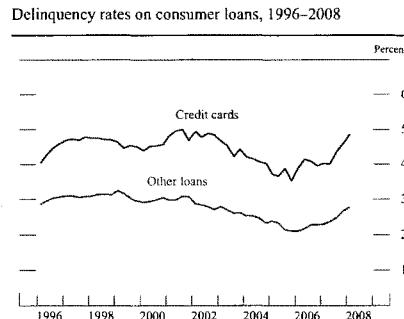
first half of this year but by less than short-term market interest rates.

Overall credit quality of consumer loans has deteriorated somewhat in recent months. Delinquency rates on consumer loans at commercial banks and captive auto finance companies rose in the first quarter but stayed within the range experienced over the past 10 years. Although household bankruptcy filings remained low relative to the levels seen before the changes in bankruptcy law implemented in late 2005, the bankruptcy rate rose modestly in the first few months of 2008.

Secondary-market data suggest that funding for credit card and auto loans has been well maintained in recent months. Notably, issuance of asset-backed securities (ABS) tied to credit card loans and auto loans has remained robust, despite spreads of yields on these securities over comparable-maturity swap rates that continue to be near historically high levels. In contrast, pressures in secondary markets for student loan ABS have reportedly affected the availability of such credit. The reimbursement formula for government-guaranteed student loans did not adequately compensate lenders for the higher funding cost in securitization markets, and issuance of guaranteed student loan ABS dropped sharply early in 2008. Legislation enacted in May gave the Department of Education and the Treasury the authority to provide short-term liquidity to institutions that lend to students, and availability of student loans appears to have improved. However, concerns persist about access to loans by students at community and career colleges, as these loans tend to be less profitable for lenders.



NOTE: The data are quarterly and extend through 2008:Q1. The financial obligations ratio equals the sum of required payments on mortgage and consumer debt, automobile leases, rent on tenant-occupied property, homeowner's insurance, and property taxes, all divided by disposable personal income.  
SOURCE: Federal Reserve Board.



NOTE: The data are quarterly and extend through 2008:Q1. Delinquency rate is the percent of loans 30 days or more past due.  
SOURCE: Federal Financial Institutions Examination Council, Consolidated Reports of Condition and Income (Call Report).

## The Business Sector

### *Fixed Investment*

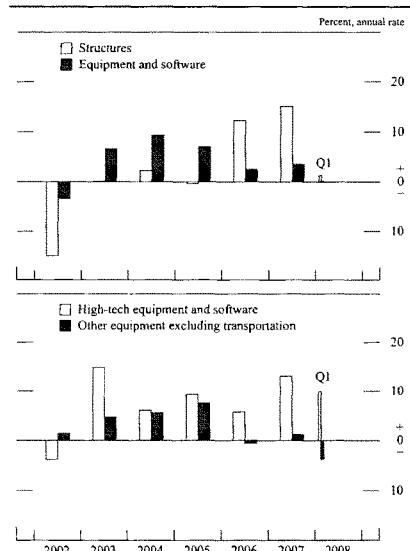
After having posted robust gains in the middle of last year, real business fixed investment lost some steam in the fourth quarter and eked out only a small advance in the first quarter of 2008. Economic and financial conditions that influence capital spending deteriorated appreciably late last year and early this year. Business sales slowed, corporate profits fell, and credit conditions for some borrowers tightened. In addition, the heightened concern about the economic outlook may have caused some firms to postpone or abandon plans for capital expansion this year.

Real business outlays for equipment and software were flat in the first quarter. Growth in real spending on high-tech equipment and software slowed to an annual rate of about 10 percent, down from the 13 percent pace recorded in 2007. In addition, business spending on motor vehicles tumbled. Investment in equipment other than high tech and transportation dropped at an annual

rate of 3½ percent in the first quarter after a smaller decline in the previous quarter. The available indicators suggest that capital spending on equipment and software fell in the second quarter. Business purchases of new motor vehicles reportedly slipped again; shipments of nondefense capital goods (adjusted to exclude both transportation items and goods that were sent abroad) were lower, on average, in April and May than in the first quarter; and the tone of recent surveys of business conditions remained downbeat.

Nonresidential construction activity, which exhibited considerable vigor in 2006 and 2007, slowed appreciably in the first quarter of 2008. Real outlays for new commercial buildings declined sharply in the first quarter, and increases in outlays for most other types of building stepped down. More-recent data on construction expenditures suggest that spending on nonresidential structures may have bounced back in the second quarter. However, deteriorating economic and financial conditions indicate that this rebound may be short-lived. In addition to the weakening of business sales and profits, vacancy rates turned up in the first quarter (the latest available data). Moreover, the financing environment has remained difficult; bank lending officers have reported a significant tightening of terms and standards for commercial real estate loans, and funding through the commercial mortgage-backed securities (CMBS) market has continued to be extremely limited.

Change in real business fixed investment, 2002–08



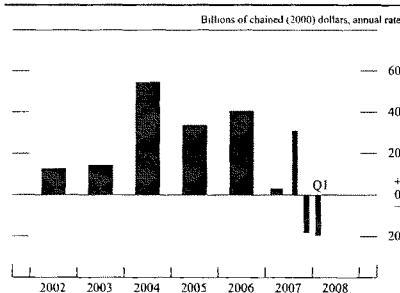
NOTE: High-tech equipment consists of computers and peripheral equipment and communications equipment.

SOURCE: Department of Commerce, Bureau of Economic Analysis.

### *Inventory Investment*

Despite sluggish final sales, inventories declined again in the first quarter of 2008 as firms acted promptly to

Change in real business inventories, 2002–08



SOURCE: Department of Commerce, Bureau of Economic Analysis.

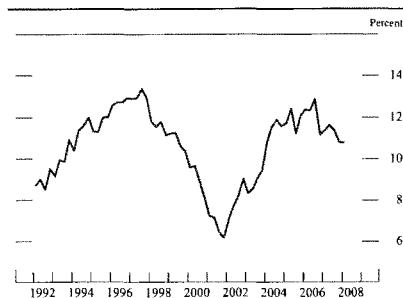
prevent inventory imbalances from arising. Automakers, which had worked to bring days' supply down to a sustainable level last year, have moved aggressively to keep production aligned with demand in recent quarters. Excluding motor vehicles, real inventory investment fell in the fourth quarter of 2007 to its lowest level in several years and then turned negative in the first quarter of this year. According to the limited available data, nonauto businesses continued to liquidate real inventories early in the second quarter. Business surveys suggest that companies are generally comfortable with their current stock levels. Nonetheless, a few industries, most notably those producing construction supplies, are showing some evidence of inventory overhangs.

### **Corporate Profits and Business Finance**

The sluggish pace of business investment in recent months is due in part to the weakening of domestic profitability and the tighter credit conditions faced by some businesses. In the first quarter of 2008, total economic profits for all U.S. corporations were down slightly from their level four quarters earlier; a nearly 20 percent rise in receipts from foreign subsidiaries was not sufficient to offset a 2½ percent fall in domestically generated profits. Although profits as a share of output in the nonfinancial corporate sector have declined in recent quarters, they remain well above previous cyclical lows. For companies in the S&P 500, operating earnings per share fell 17 percent over the year ending in the first quarter. This decline was more than accounted for by plummeting earnings at financial firms, which reported large write-downs on leveraged loans and mortgage-related assets.<sup>6</sup> For nonfinancial firms in the S&P 500, earnings rose nearly 11 percent over the four quarters ending in the first quarter of 2008; energy-sector firms had a strong 31 percent increase in earnings, whereas earnings at other nonfinancial firms rose 4½ percent.

Although credit has remained available to the business sector, yields on corporate bonds increased significantly over the first half of the year, and banks reported tighter terms and standards on commercial and industrial loans and on commercial real estate loans. All told, the growth rate of the debt of nonfinancial businesses fell from 11¾ percent in 2007 to 9¼ percent in the first

Before-tax profits of nonfinancial corporations as a percent of sector gross domestic product, 1992–2008



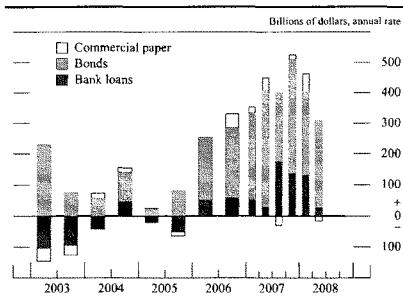
NOTE: The data are quarterly and extend through 2008:Q1. Profits are from domestic operations of nonfinancial corporations with adjustments for inventory valuation and capital consumption.

SOURCE: Department of Commerce, Bureau of Economic Analysis.

quarter of 2008; the available data point to a further deceleration in the second quarter of this year.

On balance, the composition of borrowing by nonfinancial businesses has shifted this year toward longer-maturity debt. Net bond issuance by nonfinancial firms has been strong. Speculative-grade issuance, which dropped sharply late last year and was practically nil in the first quarter, rebounded markedly in the second quarter, while investment-grade issuance has continued to be robust. Spreads between yields on investment- and speculative-grade bonds and those on comparable-maturity Treasury securities climbed in January and then surged in March. After narrowing in April and

Selected components of net financing for nonfinancial corporate businesses, 2003–08



NOTE: The data for the components except bonds are seasonally adjusted. The data for 2008 Q2 are estimated.

SOURCE: Federal Reserve Board, flow of funds data.

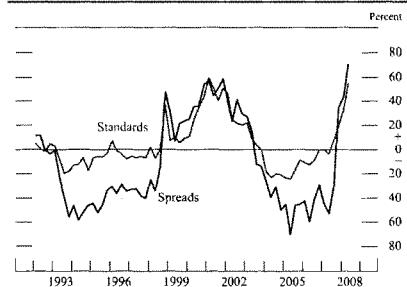
6. Asset write-downs and capital losses are generally excluded from the calculation of economic profits but are included as an expense in the operating earnings per share of financial firms.

May, bond spreads jumped again in late June. Outstanding commercial paper (CP) for nonfinancial firms has been little changed, on net, this year. Yields on nonfinancial CP have moved down since the beginning of the year, roughly in line with other short-term interest rates, although spreads between yields on lower-rated and higher-rated nonfinancial CP remain well above the levels prevailing before the onset of the financial difficulties last summer.

Commercial and industrial (C&I) loans at banks expanded briskly in the first quarter and then slowed markedly in the second quarter. In the Senior Loan Officer Opinion Survey taken in January and April, considerable net fractions of banks reported that they had tightened credit standards and boosted spreads on C&I loans. According to the respondent banks, the move to a more stringent lending posture mainly reflected a less favorable or more uncertain economic outlook and a reduced tolerance for risk; a significant fraction also noted concerns about the capital position of their own bank as a reason for tightening standards. The secondary market for syndicated leveraged loans remained relatively weak, but loans associated with some prominent buyouts were sold, albeit at a discount.

Gross equity issuance by nonfinancial firms dipped in the first quarter and rebounded in the second quarter. A sharp decline in share repurchases and cash mergers

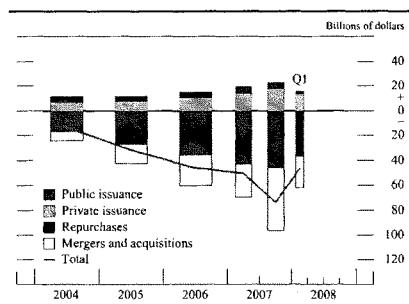
**Net percentage of domestic banks tightening standards and increasing spreads on commercial and industrial loans to large and medium-sized borrowers, 1992–2008**



**NOTE:** The data are drawn from a survey generally conducted four times per year; the last observation is from the April 2008 survey, which covers 2008:Q1. Net percentage is the percentage of banks reporting a tightening of standards or an increase in spreads less the percentage reporting an easing or a decrease. Spreads are measured as the loan rate less the bank's cost of funds. The definition for firm size suggested for, and generally used by, survey respondents is that large and medium-sized firms have annual sales of \$50 million or more.

**SOURCE:** Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

#### Components of net equity issuance, 2004–08



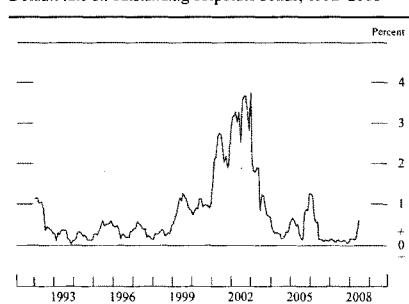
**NOTE:** Net equity issuance is the difference between equity issued by domestic companies in public or private markets and equity retired through share repurchases, domestic cash-financed mergers, or foreign takeovers of U.S. firms. Equity issuance includes funds invested by private equity partnerships and stock option proceeds.

**SOURCE:** Federal Reserve Board, flow of funds data.

led to a notable reduction of net equity retirement in the first quarter.

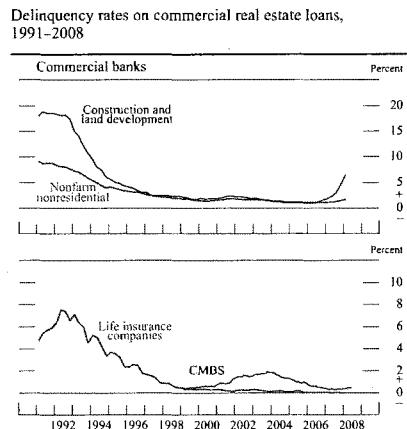
The credit quality of nonfinancial corporations generally has remained solid. The six-month trailing bond default rate was very low despite a small tick up in June. The delinquency rate on C&I loans at commercial banks continued the mild increase that began last year, but it remained subdued by historical standards. Ratings downgrades in the first five months of this year were modest, only slightly exceeding upgrades. Balance sheet liquidity at nonfinancial corporations remained

#### Default rate on outstanding corporate bonds, 1992–2008



**NOTE:** The data are monthly and extend through June 2008. The rate for a given month is the face value of bonds that defaulted in the six months ending in that month, multiplied by 2 to annualize the defaults and then divided by the face value of all bonds outstanding at the end of the calendar quarter immediately preceding the six-month period.

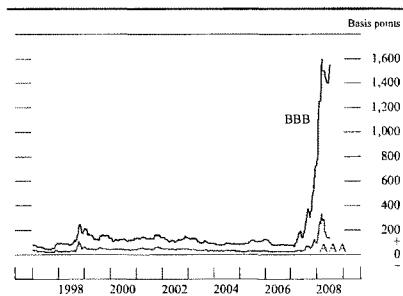
**SOURCE:** Moody's Investors Service.



NOTE: The data for commercial banks and life insurance companies are quarterly and extend through 2008:Q1. The data for commercial mortgage-backed securities (CMBS) are monthly and extend through June 2008. The delinquency rates for commercial banks and CMBS are the percent of loans 30 days or more past due or not accruing interest. The delinquency rate for life insurance companies is the percent of loans 60 days or more past due or not accruing interest.

SOURCE: For commercial banks, Federal Financial Institutions Examination Council, Consolidated Reports of Condition and Income (Call Report); for life insurance companies, American Council of Life Insurers; for CMBS, Citigroup.

**Spreads of 10-year investment-grade commercial mortgage-backed securities over swaps, by securities rating, 1997–2008**



NOTE: The data are weekly and extend through July 9, 2008.

SOURCE: Bloomberg.

widening of spreads reportedly reflected heightened concerns regarding standards for underwriting commercial mortgages over the past few years and likely also investors' wariness of structured finance products more generally. After hitting a record level in early 2007, issuance of CMBS dropped sharply late last year and slowed to a trickle so far this year.

## The Government Sector

### Federal Government

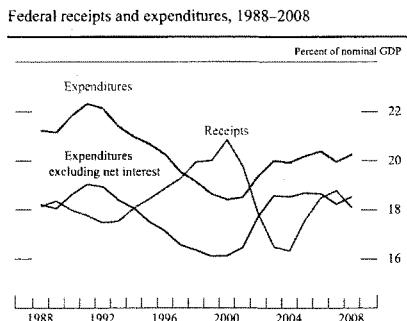
The deficit in the federal unified budget has widened during the current fiscal year after having narrowed in the preceding few years. A substantial portion of the rebates authorized by the Economic Stimulus Act of 2008 was distributed in May and June, which caused a significant widening of the deficit. In addition, the growth of receipts has slowed in response to the weaker pace of economic activity, and the growth of outlays has stepped up. Over the first nine months of fiscal year 2008—from October through June—the unified budget recorded a deficit that was \$148 billion greater than during the comparable period ending in June 2007. When measured relative to nominal GDP, the deficit moved up from 1 1/4 percent in fiscal 2007 to 2 1/4 percent during the 12 months ending in June 2008; a continued slow pace of economic activity and additional revenue losses associated with the Stimulus Act are expected to widen the deficit further in the final three months of fiscal 2008.

The Economic Stimulus Act is estimated to result in about \$115 billion of rebates being sent to households

high through the first quarter of 2008, and leverage stayed very low.

In the April 2008 Senior Loan Officer Opinion Survey, a large fraction of banks reported having tightened credit standards on commercial real estate loans. Delinquency rates on commercial real estate loans for construction and land development projects extended by commercial banks moved sharply higher in the first quarter of 2008 after rising noticeably last year. In contrast, delinquency rates on bank loans that finance existing commercial properties moved up only slightly. Delinquency rates on commercial mortgages held by life insurance companies and those in CMBS pools, which mostly finance existing commercial properties, remained low.

Despite the generally solid performance of commercial mortgages in securitized pools, spreads of yields on CMBS over comparable-maturity swap rates soared to unprecedented levels early in 2008. In recent months, these spreads have narrowed somewhat, but they remain well above levels seen before this year. The



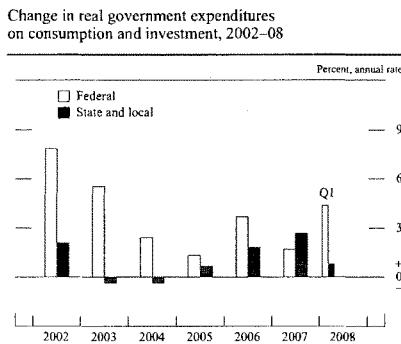
NOTE: Through 2007, receipts and expenditures are on a unified-budget basis and are for fiscal years (October through September); gross domestic product (GDP) is for the four quarters ending in Q3. For 2008, receipts and expenditures are for the 12 months ending in June, and GDP is the average of 2007-Q4 and 2008-Q1.

SOURCE: Office of Management and Budget.

in 2008 and 2009. The rebates began to be distributed in the last few days of April, and by the end of June, approximately \$80 billion worth of rebates had been disbursed, accounting for more than half of the widening of the budget deficit in the first nine months of fiscal 2008 relative to the same period in fiscal 2007.

The slower pace of economic activity has cut into receipts. Excluding the budgetary effects of stimulus rebates, federal revenues in the first nine months of fiscal 2008 were only 2 percent higher than in the same period in fiscal 2007, down from a rise of 6½ percent in fiscal 2007 and considerably smaller than the double-digit gains recorded in fiscal 2005 and fiscal 2006. The slowdown in federal revenues has been most pronounced for corporate receipts, reflecting the decline in corporate profits since the middle of 2007. Individual income and payroll tax receipts—excluding the stimulus rebates—also have slowed, likely because of the smaller gains in personal income during the current fiscal year.

Nominal federal outlays in the first nine months of fiscal 2008 were 6½ percent above their level in the comparable period in fiscal 2007, a faster pace of increase than was recorded in fiscal 2007 but generally below the rapid increases seen in fiscal 2002 through 2006. So far this fiscal year, the growth of outlays for defense has stepped up relative to fiscal 2006 and 2007, and spending has continued to rise apace in most major nondefense categories. In the months ahead, outlays will be bumped up further by the extension of eligibil-



SOURCE: Department of Commerce, Bureau of Economic Analysis.

ity for unemployment insurance benefits to individuals who have exhausted their benefits.

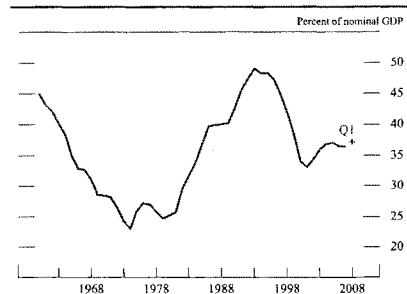
As measured in the national income and product accounts (NIPA), real federal expenditures on consumption and gross investment—the part of federal spending that is a direct component of GDP—increased at an annual rate of 4½ percent in the first quarter, a contribution of 0.3 percentage point to real GDP growth. Real defense spending accounted for almost the entire rise, as nondefense outlays only edged up. In the second quarter, defense spending appears to have posted another sizable increase, and given currently enacted appropriations, it is likely to rise further in coming quarters.

#### Federal Borrowing

Federal debt rose at an annual rate of 7½ percent in the first two quarters of fiscal year 2008—from October through March—a notable step-up from the 4½ percent pace in fiscal 2007. As of the end of March, the ratio of federal debt held by the public to nominal GDP was about 37 percent, slightly higher than in recent years.

The deterioration in the budget position of the federal government led the Treasury to reintroduce the one-year Treasury bill, which was last issued in 2001. The initial auction on June 3 was very well received, with a bid-to-cover ratio above 3. Issuance also increased for both shorter- and longer-maturity Treasury securities. The proportion of nominal coupon securities purchased at Treasury auctions by foreign investors changed little

## Federal government debt held by the public, 1960–2008



NOTE: The data extend through 2008:Q1. The data for debt through 2007 are as of year-end, and the corresponding values for gross domestic product (GDP) are for Q4 at an annual rate; the final observation refers to debt at the end of 2008:Q1, and the corresponding value of GDP is for 2008:Q1 at an annual rate. Excludes securities held as investments of federal government accounts.

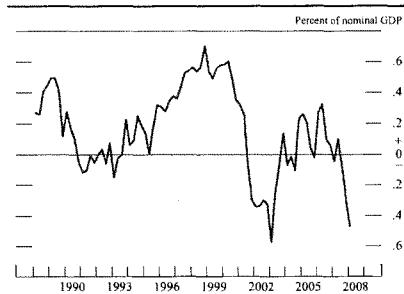
SOURCE: Federal Reserve Board, flow of funds data.

over the first half of 2008 and remains in the range of 10 percent to 25 percent observed over the past several years. However, holdings of Treasury securities by foreign official institutions at the Federal Reserve Bank of New York increased more rapidly in the first half of 2008 than over any of the previous three years.

***State and Local Government***

The fiscal positions of state and local governments began to weaken last year and have continued to deteriorate in 2008. After having improved significantly from 2003 to 2006, net saving by the sector—which is broadly similar to the surplus in an operating budget—turned slightly negative in 2007, and this measure moved further into negative territory in the first quarter of 2008. The deterioration in budget conditions has occurred as increases in revenues have slowed while nominal expenditures have risen at a brisk pace. The slowdown in state income tax revenues has followed a pattern similar to the one that has emerged at the federal level. Corporate receipts have declined, and the rise in individual income taxes has become more subdued. At the same time, state receipts from sales taxes have softened markedly. At the local level, the decline in house prices has not yet begun to curb local property tax revenues appreciably, but increases in local receipts from this source seem likely to slow more noticeably in the next few years.

## State and local government net saving, 1988–2008



NOTE: The data, which are quarterly, are on a national income and product account basis and extend through 2008:Q1.

SOURCE: Department of Commerce, Bureau of Economic Analysis.

On the outlays side of the accounts, nominal spending has continued to rise, particularly for expenditures on health care and energy items. In real terms, expenditures on consumption and gross investment by state and local governments (as measured in the NIPA) rose only a bit in the first quarter, as increases in expenditures on current operations were largely offset by a decline in outlays on structures. However, construction expenditures are volatile from quarter to quarter, and the data through May suggest that real state and local expenditures for structures picked up in the second quarter. Meanwhile, state and local hiring remained elevated through June.

***State and Local Government Borrowing***

Bond issuance by state and local governments slowed moderately in the first quarter of 2008 as the cost of borrowing rose. Investors demanded higher returns, in part because of concerns about the strength of financial guarantors that insure many municipal bonds and in part because of concerns about the effect of a potential economic slowdown on state and local government revenues.<sup>7</sup> Beginning in February, these investor apprehen-

7. Concerns about the financial guarantors arose in 2007, but significant downgrades did not occur until early this year. In June, Moody's and Standard & Poor's downgraded MBIA and Ambac, two of the largest guarantors, from AAA to AA or lower. New bond insurance business has shifted to guarantors that are viewed as financially stronger, and some municipalities have stated their intention to dispense with guarantors and issue on the strength of their own ratings.

sions also led to widespread failures of rate-resetting auctions for auction rate securities (ARS) issued by state and local governments.<sup>8</sup> Pressures in the municipal securities market eased somewhat in the second quarter, along with the broader relaxation of financial market strains. In addition, ratings upgrades of municipalities greatly exceeded downgrades in the second quarter. Since March, municipal bond issuance has rebounded, and a significant fraction of failing ARS issues have been paid down with the proceeds of standard bond issues.

### National Saving

Total net national saving—that is, the saving of households, businesses, and governments excluding depreciation charges—dipped below zero in the first quarter of 2008. After having stood at an already low rate of 1½ percent of nominal GDP in the second quarter of 2007, the national saving rate declined steadily over the subsequent three quarters, as the federal budget deficit

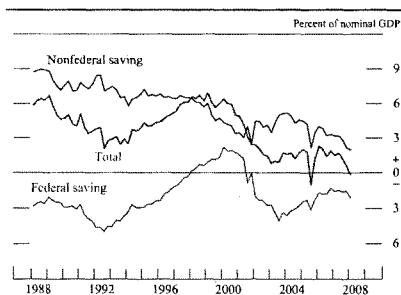
widened, the fiscal positions of state and local governments deteriorated, and business saving decreased. Accordingly, total national saving as a share of nominal GDP, which has been declining, on balance, since the late 1990s, has fallen to a historic low (apart from the third quarter of 2005, which was marked by sizable hurricane-related property losses). If not reversed over the longer run, persistent low levels of saving will be associated with either slower capital formation or continued heavy borrowing from abroad, either of which would retard the rise in the standard of living of U.S. residents over time and hamper the ability of the nation to meet the retirement needs of its aging population.

### The External Sector

#### International Trade

Foreign demand has continued to be an important source of strength for the U.S. economy. Net exports contributed ¾ percentage point to the growth of real GDP in the first quarter of 2008 after adding a similar amount to growth in 2007. The growth of real exports of goods and services expanded at a 5½ percent pace in the first quarter, moderating from the 12½ percent surge recorded in the second half of 2007. Export growth in the first quarter was supported by higher exports of agricultural products, consumer goods, industrial supplies, and services. In contrast, exports of both aircraft and automobiles moved down after rising rapidly in the second half of 2007. Exports to Europe and Latin America rose robustly (in current dollars), while

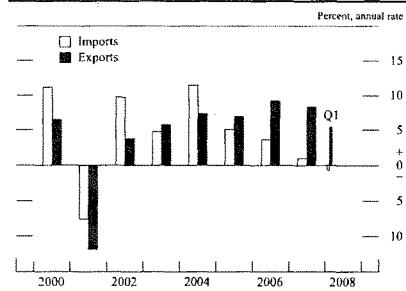
Net saving, 1988–2008



NOTE: The data are quarterly and extend through 2008:Q1. Nonfederal saving is the sum of personal and net business saving and the net saving of state and local governments.

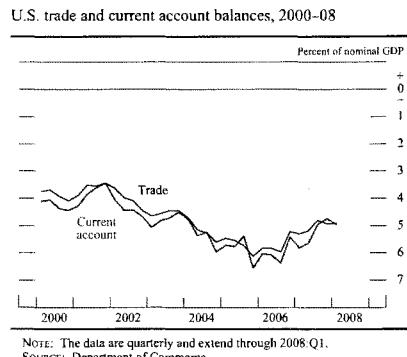
SOURCE: Department of Commerce, Bureau of Economic Analysis.

Change in real imports and exports of goods and services, 2000–08



NOTE: Data for 2008:Q1 are expressed as percent change from 2007:Q4.

SOURCE: Department of Commerce.



exports to Canada and to OPEC countries fell back. Data for April and May suggest that exports continued to expand in the second quarter, with exports of industrial supplies showing particular strength.

The positive contribution of net exports in the first quarter reflected, in part, a  $\frac{1}{4}$  percent decline in real imports of goods and services. Imports of automotive products and consumer goods fell in line with slowing U.S. domestic demand, more than offsetting higher real imports of oil and a slight increase in imports of capital goods. Imports from China and Mexico declined (in current dollars), whereas imports from Canada, Japan, and OPEC countries expanded. After falling sharply

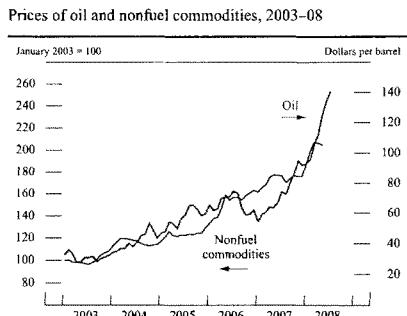
in March, imports rebounded, on average, in April and May, as imports of capital equipment and consumer goods increased strongly.

In the first quarter of 2008, the U.S. current account deficit was \$706 billion at an annual rate, or 5 percent of GDP, \$25 billion narrower than its level in 2007; the narrowing largely reflects higher net investment income. A large improvement in the non-oil trade deficit was offset by a sharp increase in the bill for imported oil, which resulted from the jump in oil prices.

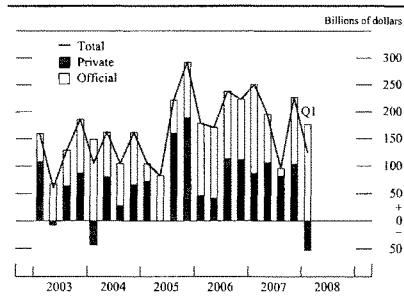
Compared with 2007, prices for imports of both material-intensive and finished goods are increasing at much faster rates so far this year. Although import price increases also reflect the depreciation of the dollar, rising commodity prices (discussed in more detail in the box entitled "Commodity Prices" on page 18) have significantly boosted the rate of import price inflation. In the first quarter, prices of imported goods excluding oil and natural gas rose at an annual rate of about  $7\frac{1}{2}$  percent, a pace more than twice that of the previous year. Available data suggest that import price inflation was sharply higher in the second quarter.

### The Financial Account

In late 2007 and the first quarter of 2008, the U.S. current account deficit was financed primarily by foreign purchases of U.S. securities, as has been the norm in recent years. The global financial turmoil has continued to leave an imprint on both the sources and composition of cross-border financial flows, including a net private outflow in the first quarter. Meanwhile, foreign official inflows provided all of the financing from abroad during the first quarter, driven by net purchases of U.S. Treasury and agency securities by Asian institutions.



### U.S. net financial inflows, 2003–08



## Commodity Prices

Prices for crude oil and many other commodities continued to soar through the first half of 2008. After shooting up about 60 percent last year, the spot price of West Texas intermediate crude oil has increased an additional 50 percent thus far in 2008, climbing from \$92 per barrel in December 2007 to about \$140 recently. While weaker economic growth and the high level of prices appear to be damping oil demand in industrialized nations, demand from emerging market countries remains robust. The continued strength in emerging market demand reflects, in part, government subsidies that limit the pass-through of higher crude prices to retail products and thus mute the response to higher prices. Furthermore, on the supply side, incoming information since the beginning of the year has been decidedly downbeat, with non-OPEC production continuing to fall short of expectations. Despite additional investment, oil production capacity has not risen at a pace commensurate with the growth of global demand. The lack of spare capacity has led, in turn, to heightened sensitivity of oil prices to political developments,

such as ongoing tensions in the Middle East and instability in Nigeria. The price of the far-dated NYMEX oil futures contract (currently for delivery in 2016) has also risen to about \$140 per barrel and suggests that the balance of supply and demand is expected to remain tight for some time to come.

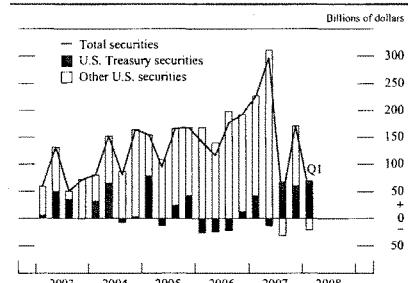
Nearer-term market pressures have been reflected in domestic inventories of both crude oil and refined oil products, which have declined notably in recent months and stand well below year-earlier levels. Inventories also appear to be tight in other countries (although data are less complete for emerging market countries). Lean inventories increase the vulnerability of petroleum markets to any disruptions in production, transportation, and refining, which is of particular concern during hurricane season. The tightness of inventories suggests that the recent increases in oil prices reflect near-term demand and supply pressures, rather than speculative hoarding.

Prices of nonfuel commodities were quite volatile in the first half of 2008. Through early

(continued on next page)

Unusually large net purchases of corporate securities also contributed to foreign official inflows, likely reflecting sovereign wealth fund activity.

Net private foreign purchases of U.S. securities, 2003–08



NOTE: Other U.S. securities include corporate equities and bonds, agency bonds, and municipal bonds.

SOURCE: Department of Commerce.

Foreign private demand appeared to remain robust for the safest U.S. investments—net private purchases of U.S. Treasury securities, which surged in the third quarter of 2007 when the turmoil began, remained at near-record levels through April 2008. In contrast, corporate bond purchases by foreign private investors have been weaker in each quarter of the turmoil than in any previous quarter since 2002. Corporate equity purchases have also been very weak in 2008 through April after a strong rebound in the fourth quarter of 2007. Overall, total inflows from foreign private acquisitions of U.S. securities were well below average in the first quarter of 2008 but slightly above the nine-year low set in the third quarter of 2007 as the turmoil began.

Inflows from private purchases of U.S. securities in the first quarter of 2008 were offset by strong outflows associated with U.S. direct investment abroad and by interbank flows. Somewhat surprisingly given the global financial turmoil, the strength seen in U.S. direct investment abroad in 2007 persisted through the fourth quarter and into the first quarter of 2008. In addition, net lending abroad by U.S.-resident banks, which

(continued from preceding page)

March, prices of many commodities rose sharply, including those for some foods (such as corn and wheat) and metals (in particular, copper and aluminum). This broad-based price increase appears to have been driven mainly by growth in global demand. More recently, however, price movements have been less uniform, and commodities such as wheat and nickel have seen sharp price declines. Nevertheless, some other food commodity prices have continued to soar, particularly the price of corn, which has been affected by weather-related concerns, including the recent floods in the Midwest. The price of rice has also increased sharply this year, which has led a number of rice-producing countries to enact export bans, adding to upward pressure on global prices. Through feed costs, increased grain prices also have been reflected in higher prices for meat and dairy products.

The supply response of farm crops to price increases typically has had a relatively short time lag, usually through increasing land under cultivation. Although increases in acreage devoted to one crop have recently come at the expense of other crops, yields have risen, and should continue to do so as more-advanced seed varieties and cultivation techniques are employed.

In addition to supply and demand conditions in the physical markets, other factors have been cited as con-

tributing to the rise in commodity prices in recent years, including depreciation of the dollar and lower interest rates. All else being equal, a lower value of the dollar implies a higher dollar price of commodities, but the causal relationships between the exchange value of the dollar and commodity prices are complex and run in both directions. The fact that commodity prices have risen significantly in terms of all major currencies suggests that factors other than the depreciation of the dollar have been important causes of the rise in prices. Similarly, the relationship between interest rates and commodity prices may depend on what is driving changes in interest rates. For example, to the extent that lower interest rates reflect a relatively weak economy and thus softer demand for commodities, interest rates and commodity prices may tend to move in the same direction. And irrespective of their cause, lower interest rates might also lead to a buildup in commodity inventories—as a result of reduced financing costs of holding inventories—potentially putting upward pressure on prices. However, inventory levels of key commodities have not risen this year, a fact that is at odds with such explanations of price increases that emphasize the role of interest rates.

tends to be quite volatile, has increased with unusual consistency since the turmoil began; these outflows, primarily from foreign-owned banks to their European

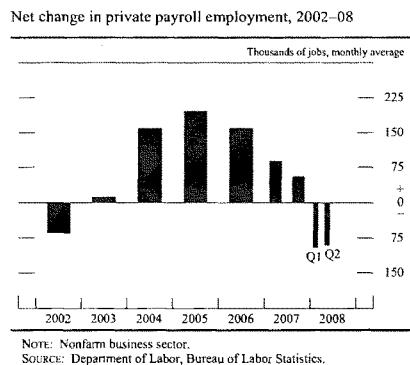
affiliates, were particularly large in March as conditions in U.S. and European interbank funding markets re-intensified.

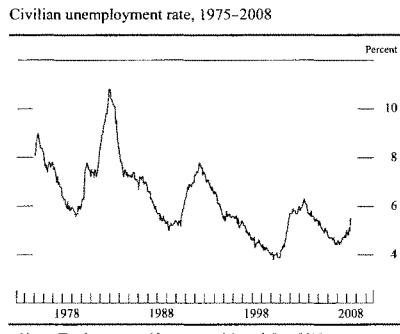
## The Labor Market

### Employment and Unemployment

The demand for labor has been contracting this year. After having increased 54,000 per month, on average, in the second half of 2007, private payroll employment declined at an average monthly pace of 94,000 in the first half of 2008. Over the same period, the civilian unemployment rate moved up more than  $\frac{1}{2}$  percentage point, to 5 $\frac{1}{2}$  percent.

Job losses in the first half of 2008 were concentrated in the construction and manufacturing sectors. Although businesses in these industries have been trimming payrolls for more than two years, the downsizing has intensified during the past several months. In addition, job losses have begun to mount this year in the whole-





jobs (as opposed to those who voluntarily left their jobs or were new entrants to the labor force) rose, on net, this spring. In addition, the percentage of persons who reported that they were working part time for economic reasons increased sharply. Thus far, the labor force participation rate, which typically falls during periods of labor market weakness, has remained steady and stood at 66.1 percent in June, near the middle of the range that has prevailed since early 2007.

Other indicators also point to further deterioration in labor market conditions this year. Private surveys of businesses suggest that firms plan to continue cutting back on hiring in the near term. At the same time, according to surveys of consumers, assessments of labor market prospects in the year ahead, which had worsened late last year, slipped further in the first half of 2008.

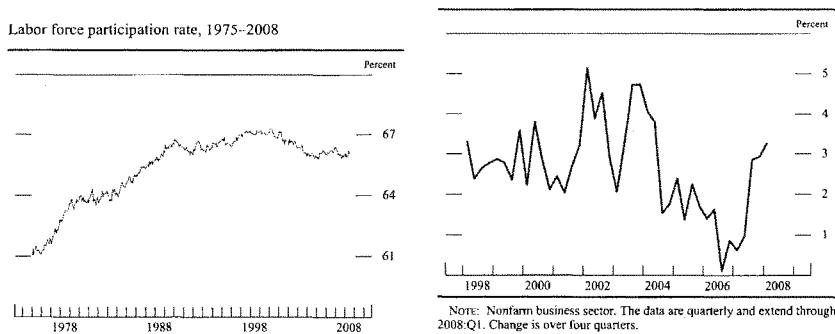
sale and retail trade sectors and in the professional and business services category. Even among the many sectors in which payrolls have continued to expand, such as technical services providers and eating and drinking establishments, job gains have been less robust so far this year than in 2007. A notable exception has been hiring by providers of health and education services, which has remained strong.

The unemployment rate, which rose  $\frac{1}{2}$  percentage point in 2007, increased another  $\frac{1}{2}$  percentage point in the first half of this year. Initial claims for unemployment insurance and the number of individuals receiving unemployment insurance benefits moved up considerably over the six months ending in June; accordingly, the share of unemployed workers who lost their last

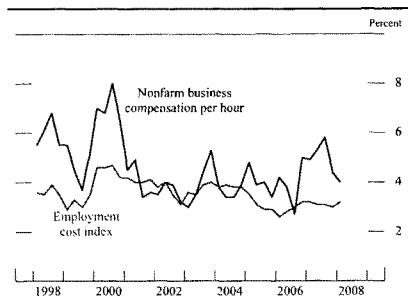
#### **Productivity and Labor Compensation**

Gains in labor productivity have moved up significantly of late. According to the latest available published data, output per hour in the nonfarm business sector rose  $3\frac{1}{4}$  percent during the year ending in the first quarter of 2008, up from the  $\frac{1}{2}$  percent increase recorded over the preceding four quarters. On average, the rise in productivity over the past two years, although less than the outsized increases posted earlier in the decade, suggests that the fundamental forces that in recent years have supported a solid uptrend in underlying productivity remain in place. Those forces include the rapid pace of technological change and the ongoing efforts by firms

Change in output per hour, 1998–2008



## Measures of change in hourly compensation, 1998–2008



NOTE: The data are quarterly and extend through 2008 Q1. For nonfarm business compensation, change is over four quarters; for the employment cost index (ECI), change is over the 12 months ending in the last month of each quarter. The nonfarm business sector excludes farms, government, nonprofit institutions, and households. The sector covered by the ECI used here is the nonfarm business sector plus nonprofit institutions. A new ECI series was introduced for data as of 2001, but the new series is continuous with the old.

SOURCE: Department of Labor, Bureau of Labor Statistics.

to use information technology to improve the efficiency of their operations. Increases in the amount of capital, especially high-tech capital, available to each worker also appear to be providing considerable impetus to productivity growth.

Broad measures of hourly labor compensation have not kept pace with the rapid increases in both overall consumer prices and labor productivity, despite a labor market that, until recently, had been generally tight. The employment cost index (ECI) for private industry workers, which measures both wages and the cost to employ-

ers of providing benefits, rose 3½ percent in nominal terms between March 2007 and March 2008 (the latest available data), the same gain as was recorded over the preceding 12 months. Although the increase in the wage and salary component of the ECI edged down, the rise in benefits costs picked up markedly. Benefits costs were pushed up by a sharp rise in employer contributions to retirement plans, which likely reflected, in part, the weak performance of the stock market and an atypically small increase in employer contributions in the preceding year.

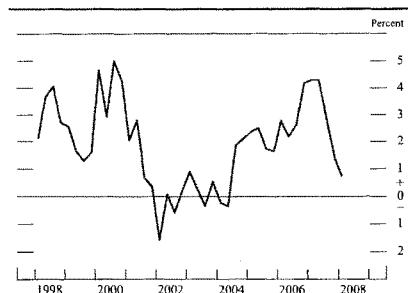
According to preliminary data, compensation per hour in the nonfarm business (NFB) sector—an alternative measure of hourly compensation derived from the data in the NIPA—rose 4 percent over the year ending in the first quarter of 2008, down from a 5 percent gain in the previous year. Because of the slower growth in NFB hourly compensation and the faster growth in productivity over the period, unit labor costs rose just ¾ percent over the year ending in the first quarter of 2008 after having increased 1¼ percent over the preceding year. On average, the rise in unit labor costs over the past two years is about on par with the increases recorded in the preceding two years.

## Prices

Headline inflation remained elevated in the first half of 2008, as prices for both food and energy continued to surge. The chain-type price index for personal consumption expenditures increased at an annual rate of 3.4 percent between December 2007 and May 2008, about the same as the brisk pace registered over the 12 months of 2007. Excluding food and energy items, the PCE price index rose at an annual rate of 1.9 percent over the first 5 months of the year, down from the 2.2 percent increase over the 12 months of 2007.

Energy prices, which jumped 20 percent over 2007, continued to soar in the first five months of this year. Spurred by rising crude oil costs, motor fuel prices continued to move up through May, and increases in prices of heating fuel and natural gas also jumped appreciably. Furthermore, the pass-through of the record-high levels of crude oil prices into retail gasoline prices was only partial, and wholesale and retail margins were unusually compressed in May. As these margins return to more typical levels, retail prices are likely to rise further. Indeed, survey evidence suggests that prices at the pump jumped again in June and early July. The recent pickup in natural gas prices apparently reflected substitution by utilities and other users away from relatively

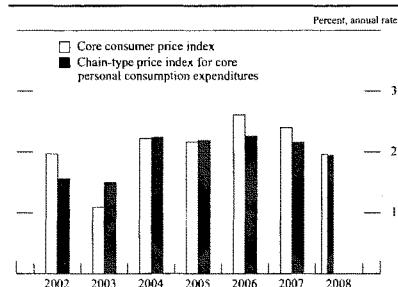
## Change in unit labor costs, 1998–2008



NOTE: Nonfarm business sector. The data are quarterly and extend through 2008 Q1. Change is over four quarters.

SOURCE: Department of Labor, Bureau of Labor Statistics.

## Change in core consumer prices, 2002–08



NOTE: Through 2007, change is from December to December; for 2008, change is from December to May.

SOURCE: For core consumer price index, Department of Labor, Bureau of Labor Statistics; for chain-type price index, Department of Commerce, Bureau of Economic Analysis.

expensive crude oil as well as the unexpected shutdown of some production in the Gulf of Mexico during the spring.

Food prices have also picked up further this year. After climbing 4½ percent in 2007, the PCE price index for food and beverages increased at an annual rate of more than 6 percent between December 2007 and May 2008. High grain prices and strong export demand have been primarily responsible for sizable increases in the retail prices of poultry, fish, eggs, cereal and bakery items, fats and oils, and a variety of other prepared foods. In addition, the index for fruits and vegetables rose at an annual rate of 7½ percent over the first five months of the year, likely reflecting, in part, higher input costs. Although world grain production improved this spring, excessively wet weather and flooding in the Midwest boosted spot prices for corn and soybeans in June.

The small decline in core PCE price inflation this year masked some substantial—but largely offsetting—crosscurrents. Shelter costs have continued to decelerate as housing markets have softened further. In addition, a moderation in the pace of medical care price increases has also held down core price inflation this year. In contrast, prices of core services besides medical and shelter costs have increased more rapidly. Similarly, prices of core goods, which declined some in 2007, were about flat, on net, over the first five months of this year.

More fundamentally, increased slack in labor and product markets is likely damping price increases this year. However, a number of other factors are putting upward pressure on core inflation. Higher prices for

## Alternative measures of price change, 2007–08

Price measure	2007	2008
<i>Chain-type (Q1 to Q2)</i>		
Gross domestic product (GDP) .....	2.9	3.2
Excluding food and energy .....	2.9	1.9
Gross domestic purchases .....	2.6	3.2
Personal consumption expenditures (PCE) .....	2.3	3.4
Excluding food and energy .....	2.4	2.0
Market-based PCE excluding food and energy .....	2.2	1.8
<i>Fixed-weight (Q2 to Q2)</i>		
Consumer price index .....	4.0	3.8
Excluding food and energy .....	2.3	2.2

Note: Changes are based on quarterly averages of seasonally adjusted data. For the consumer price index, the 2008:Q2 value is calculated as the average for April and May compared with the average for the second quarter of 2007 and is expressed at an annual rate.

SOURCE: For chain-type measures, Department of Commerce, Bureau of Economic Analysis; for fixed-weight measures, Department of Labor, Bureau of Labor Statistics.

energy and other industrial commodities continue to add to the cost of producing a wide variety of goods, and increases in the prices of non-oil imports have picked up appreciably. Moreover, inflation expectations, especially for the near term, have moved up since the turn of the year. Probably reflecting the elevated level of actual headline inflation, the median expectation for year-ahead inflation in the Reuters/University of Michigan Surveys of Consumers moved up to about 3½ percent at the end of 2007 and then continued to rise in 2008; it reached 5.3 percent in the preliminary July estimate. However, the upward movement in longer-run inflation expectations has been much less pronounced. According to the preliminary July result in the Reuters/University of Michigan survey, median 5- to 10-year inflation expectations were 3.4 percent for a third consecutive month, compared with the readings in the range of 3 percent to 3½ percent that had prevailed for the preceding few years. Similarly, estimates of 10-year inflation compensation, as measured by the spreads of yields on nominal Treasury securities over those on their inflation-protected counterparts, have moved up about 20 basis points, on balance, since the turn of the year. However, most of that increase reflected higher inflation compensation over the next 5 years; estimates of inflation compensation 5 to 10 years ahead were up only 10 basis points by early July. According to the Survey of Professional Forecasters conducted by the Federal Reserve Bank of Philadelphia, expectations of inflation over the next 10 years ticked up in the first half of 2008, though they remain essentially unchanged since 1998.

Broader, NIPA-based measures of inflation, which are available only through the first quarter of this year, slowed relative to the pace of the past couple of years.

The latest data show a rise in the price index for GDP less food and energy of about 2 percent over the year ending in the first quarter, down about 1 percentage point from the figure for the year ending in the first quarter of 2007. In addition to a lower reading for core PCE inflation over the past four quarters, prices for some other components of final demand, especially construction, decelerated.

### Financial Markets

The elevated risk spreads, high volatility, and impaired functioning that characterized domestic and international financial markets in the second half of 2007 continued through the first half of 2008. Spillovers from the slumping U.S. housing market were the largest direct source of these pressures, but a generalized flight from riskier assets—particularly structured credit products—and worries about a global economic slowdown also contributed to financial strains.<sup>9</sup> The Federal Reserve lowered the target federal funds rate an additional 225 basis points over the first four months of 2008 in response to a deteriorating outlook for economic activity.

Financial strains increased significantly during the first quarter, leading to a liquidity crisis in March at The Bear Stearns Companies, Inc., a major investment bank, and to its subsequent acquisition by JPMorgan Chase & Co. Additional actions taken by the Federal Reserve to improve market functioning and liquidity, including the introduction of liquidity facilities for primary dealers, appeared to have an ameliorative effect, and tensions eased somewhat in the second quarter. (See the box entitled "The Federal Reserve's Liquidity Operations" on page 26.) Nevertheless, conditions in a broad range of domestic and international financial markets remained strained relative to previous years. This week, the Board of Governors announced a temporary arrangement that allows the Federal Reserve to extend credit to Fannie Mae and Freddie Mac, if necessary.

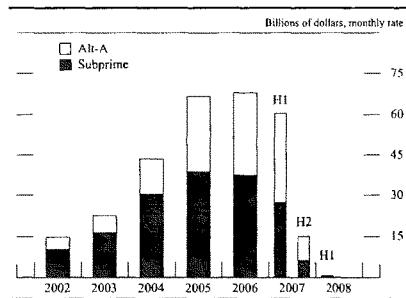
### Market Functioning and Financial Stability

The deteriorating performance of subprime mortgages in the United States prompted widespread strains and turbulence in domestic and international financial mar-

kets in the second half of 2007. Substantial losses on even the highest-rated structured products based on subprime mortgages caused market participants to reassess the risks associated with other structured financial instruments and raised concerns about the exposures of major financial institutions to these assets. As liquidity in markets for structured products evaporated, banks were forced, at least temporarily, to hold more assets on their balance sheets than they anticipated. In addition, banks' losses on mortgage-related securities and other assets prompted credit concerns among counterparties. Both of these factors contributed to strains in bank funding markets. The resulting deleveraging in the financial sector reduced the availability of credit to the overall economy. By late 2007, U.S. house prices had begun to fall, residential investment was contracting sharply, and indicators of overall economic activity had softened noticeably. These developments induced investors to pull back from a broader range of financial assets, leading to impaired liquidity conditions in many markets, with widened risk spreads and elevated volatilities.

This market turbulence continued into early 2008, as liquidity in many financial markets continued to be impaired and risk spreads remained wide. After declining sharply late last year, issuance of non-agency-sponsored mortgage-backed securities essentially came to a halt by the beginning of 2008, and secondary-market trades of these assets were rare. Price indexes of non-agency-sponsored subprime MBS based on derivatives markets declined further. However, the unusual pressures that had been apparent in short-term

Gross issuance of securities backed by alt-A and subprime mortgage pools, 2002–08

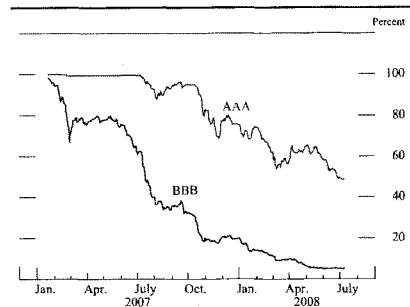


NOTE: Mortgages in alt-A pools are a mix of prime, near-prime, and subprime mortgages; such loans are typically made to higher-quality borrowers but have nontraditional amortization structures or other nonstandard features.

SOURCE: Inside MBS & ABS.

9. In a structured credit product, the credit risk of a portfolio of underlying exposures is segmented into tranches of varying seniority and risk exposure.

Price indexes of subprime mortgage-backed securities based on credit default swaps, 2007–08



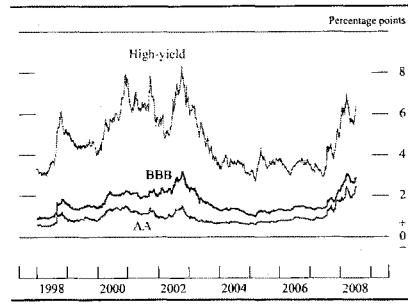
NOTE: The data are daily and extend through July 9, 2008. The series shown refer to pools of mortgages that were originated in 2006:H2.

SOURCE: Markit.

investment-grade funding markets in December eased considerably in January, owing to a combination of the passing of year-end balance sheet concerns and the provision of additional liquidity by the Federal Reserve and foreign central banks.

In February and March, short- and long-term funding markets came under renewed pressure after reports of further losses and write-downs at major banks, broker-dealers, and the government-sponsored enterprises. Fears of a weakening economy exacerbated a generalized flight from all but the safest assets. Repurchase agreement (repo) market investors exhibited a

Spreads of corporate bond yields over comparable off-the-run Treasury yields, by securities rating, 1998–2008



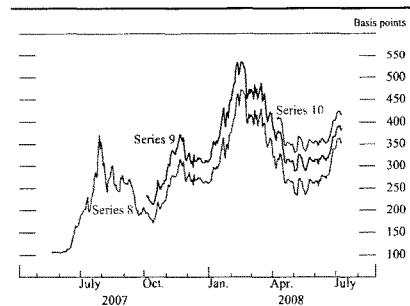
NOTE: The data are daily and extend through July 9, 2008. The spreads shown are the yields on 10-year bonds less the 10-year Treasury yield.

SOURCE: Derived from smoothed corporate yield curves using Merrill Lynch bond data.

marked preference for Treasury collateral and pushed rates on Treasury general collateral repos to historical lows that were well below the target federal funds rate. As liquidity for MBS not sponsored by the GSEs and for other private-label asset-backed securities dried up, the heightened uncertainty regarding values of these instruments led to an unprecedented increase in the margin, or "haircut," required on repos based on such collateral; the interest rate spread on these repos also rose. Spreads of corporate and GSE bond yields over yields on comparable-maturity Treasury securities jumped to multiyear highs. Ratios of yields on municipal bonds to yields on Treasury securities spiked, and failures were widespread in the auction rate securities markets for municipal securities, student loans, and other assets. Prices fell in the secondary market for leveraged loans, and implied spreads on indexes of loan-only credit default swaps, or LCDX, reached record levels in February. Liquidity was strained in many markets; for example, in the market for Treasury coupon securities, bid-asked spreads and spreads between yields on off-the-run and on-the-run securities reached multiyear highs. Bid-asked spreads in the leveraged loan market also widened noticeably. The orderly resolution of the Bear Stearns situation along with the implementation of the Primary Dealer Credit Facility and the Term Securities Lending Facility in March appeared to reduce strains in short-term funding markets and to relieve liquidity pressures more broadly across fixed-income markets (see the box entitled "The Federal Reserve's Liquidity Operations" on page 26).

Even though conditions in several markets improved somewhat after mid-March, pressures in some short-

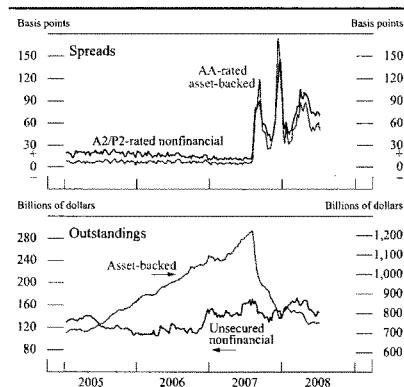
LCDX indexes, 2007–08



NOTE: The data are daily and extend through July 9, 2008. Each LCDX index consists of 100 single-name credit default swaps referencing entities with first lien syndicated loans that trade in the secondary market for leveraged loans. Series 8 began trading on May 22, 2007, series 9 on October 3, 2007, and series 10 on April 8, 2008.

SOURCE: Markit.

## Commercial paper, 2005–08



NOTE: The data are weekly and extend through July 9, 2008. Commercial paper yield spreads are for a 30-day maturity and are expressed relative to the AA nonfinancial rate. Outstandings are seasonally adjusted.

SOURCE: Depository Trust and Clearing Corporation.

term funding markets continued to intensify into April. Yield spreads rose in April on unsecured financial, asset-backed, and lower-rated nonfinancial commercial paper. Interbank term funding pressures, as measured by spreads of term London interbank offered rates over comparable-maturity overnight index swap rates, peaked in April but have since moved somewhat

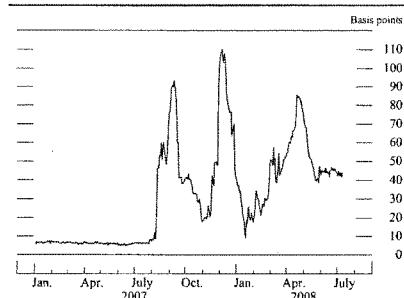
lower, at least for terms of three months and less. The expansion in May of the Federal Reserve's Term Auction Facility and of the associated swap lines with the European Central Bank and the Swiss National Bank appears to have contributed to this easing of pressures. However, for interbank funding at terms greater than three months, transaction volumes are reportedly low, and spreads remain high.

In longer-term financial markets, pressures generally eased in April and May. Spreads of conforming mortgage rates and corporate bond yields over yields on comparable-maturity Treasury securities narrowed, and prices and liquidity in the secondary market for leveraged loans increased. However, yield spreads for corporate bonds and mortgages moved higher in June. Equity prices of financial intermediaries, including the housing-related GSEs, Fannie Mae and Freddie Mac, dropped sharply in June and early July as concerns mounted both about their losses and longer-term profitability and about the prospects for earnings dilution given the considerable new capital that may need to be raised. Overall, indicators of financial market strains remain elevated compared with their levels in previous years.

## Debt and Financial Intermediation

The total debt of the domestic nonfinancial sector expanded at an annual rate of 6½ percent in the first quarter of 2008, a somewhat slower pace than in 2007.

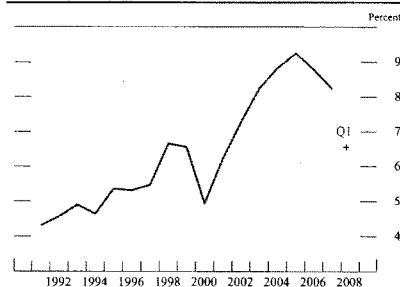
## One-month Libor minus overnight index swap rate, 2007–08



NOTE: The data are daily and extend through July 10, 2008. An overnight index swap (OIS) is an interest rate swap with the floating rate tied to an index of daily overnight rates, such as the effective federal funds rate. At maturity, two parties exchange, on the basis of the agreed nominal amount, the difference between interest accrued at the fixed rate and interest accrued by averaging the floating, or index, rate. Libor is the London interbank offered rate.

SOURCE: For Libor, British Bankers' Association; for the OIS rate, Prebon.

## Change in total domestic nonfinancial debt, 1991–2008



NOTE: The data extend through 2008:Q1. Through 2007, the data are annual and are computed by dividing the annual flow for a given year by the level at the end of the preceding year; the final observation refers to 2008:Q1 at an annual rate.

SOURCE: Federal Reserve Board, flow of funds data.

### The Federal Reserve's Liquidity Operations

In response to serious financial strains, the Federal Reserve has taken a number of steps since August 2007 to enhance liquidity and foster the improved functioning of financial markets and thereby promote its dual objectives of maximum employment and price stability.

The Federal Reserve eased the terms of access for borrowing by depository institutions under the regular primary credit program, or discount window. The spread of the primary credit rate over the target federal funds rate was narrowed from 100 basis points to 50 basis points in August 2007 and to 25 basis points in March. The maximum loan term was extended to 30 days in August 2007 and to 90 days in March; institutions have the option to renew term loans so long as they remain in sound financial condition. Over time, more institutions have used the discount window, and the more accommodative terms for borrowing at the window have reportedly improved confidence by assuring depository institutions that backstop liquidity will be available should they need it.

In December 2007, the Federal Reserve introduced the Term Auction Facility (TAF), through which predetermined amounts of discount window credit are auctioned every two weeks to eligible borrowers for terms of about one month. In effect, TAF auctions are similar to open market operations but are conducted with depository institutions rather than primary dealers and against a much broader range of collateral than is accepted in standard open market operations. The TAF appears to have overcome the reluctance to borrow associated with standard discount window lending because of its competitive auction format, the certainty that a large amount of credit would be made available, and the fact that it is not designed to meet urgent funding needs. Indeed, a large number

of banks—ranging at various points in time from around 50 to more than 90—have participated in each of the 16 auctions held thus far. The size of individual TAF auctions was raised in several steps from an initial level of \$20 billion at inception last December to \$75 billion most recently; the amount of TAF credit currently outstanding is \$150 billion.

In conjunction with the introduction of the TAF, the Federal Reserve also established swap lines with the European Central Bank and the Swiss National Bank to provide dollar funds to facilitate dollar lending by those central banks to banks in their jurisdictions. These swap lines have been enlarged over time and currently stand at \$50 billion with the European Central Bank and \$12 billion with the Swiss National Bank.

In response to the unprecedented pressures in short-term repurchase agreement (repo) markets earlier this year, the Federal Reserve initiated a special program of 28-day term repurchase agreements; \$80 billion of such agreements are currently outstanding. These agreements were designed to enhance the ability of primary dealers to obtain term funding for any assets that are eligible as collateral in conventional open market operations. Also, on March 11, the Federal Reserve announced plans to create the Term Securities Lending Facility (TSLF), in which the Federal Reserve lends Treasury securities held in its portfolio at auction against the collateral of high-grade securities held by dealers. In addition to conventional open market operation collateral—Treasury securities, agency securities, and agency-sponsored mortgage-backed securities (MBS)—the Federal Reserve now accepts AAA-rated residential MBS, commercial MBS, and other asset-backed securities as collateral at the TSLF. The Federal Reserve sets a minimum

(continued on next page)

The moderation in borrowing was mainly accounted for by a slowdown in the growth of household debt, particularly mortgage debt. Borrowing by nonfinancial businesses also decelerated, but at a 9 1/4 percent pace, it was still high by historical standards. Preliminary data suggest that overall debt growth slowed further in the second quarter.

Commercial bank credit increased at an annual rate of 4 1/4 percent in the first half of 2008, down significantly from the 10 1/4 percent expansion registered

in 2007.<sup>10</sup> Commercial and industrial loans decelerated sharply after growing at an annual rate of more than 25 percent in the fourth quarter of 2007. The surge in C&I loans late last year reportedly reflected, in part, the difficulties that banks faced in selling syndicated loans to nonbank investors; as a result, banks had to fund a

10. The growth rate of bank credit in 2007 has been adjusted to remove the effects of the conversion of a large commercial bank to a thrift institution.

(continued from preceding page)

bid rate for each TSLF auction. Bids submitted at most TSLF auctions have fallen short of the announced auction quantities. Nevertheless, market participants have indicated that the TSLF has contributed to improved functioning in repo markets.

Pressures in short-term funding markets worsened sharply in mid-March. On March 13, The Bear Stearns Companies, Inc., a prominent investment bank and primary dealer, advised the Federal Reserve and other government agencies that its liquidity position had deteriorated significantly and that it would be forced to file for bankruptcy the next day unless alternative sources of funds became available. A bankruptcy filing would have forced the secured creditors and counterparties of Bear Stearns to liquidate the underlying collateral, and given the illiquidity of markets, those creditors and counterparties might well have sustained substantial losses. If they had responded to losses or the unexpected illiquidity of their holdings by pulling back from providing secured financing to other firms and by dumping large volumes of illiquid assets on the market, a much broader financial crisis likely would have ensued with consequent harm to the overall economy. In such circumstances, the Federal Reserve Board judged that it was appropriate to use its emergency lending authorities under the Federal Reserve Act to avoid a disorderly closure of Bear Stearns. Accordingly, the Federal Reserve, after discussions with the Securities and Exchange Commission and in close consultation with the Treasury, agreed to provide short-term funding to Bear Stearns through JPMorgan Chase & Co. Over the following weekend, JPMorgan Chase agreed to purchase Bear Stearns and assume the company's financial obligations. The Federal Reserve, again in close consultation with the

Treasury, agreed to supply term funding, secured by \$30 billion in Bear Stearns assets, to facilitate the purchase. JPMorgan Chase completed the acquisition of Bear Stearns on June 26, and the Federal Reserve extended approximately \$29 billion of funding on that date.

In a further effort to prevent a possible downward spiral in financial markets, the Federal Reserve also used its emergency authorities to create the Primary Dealer Credit Facility (PDCF) in mid-March. The PDCF allows primary dealers to borrow at the discount window against collateral that includes a broad range of investment-grade securities. In effect, the PDCF provides primary dealers with a liquidity backstop similar to the discount window that is available to depository institutions.

These liquidity measures appear to have contributed to some improvement in financial markets since late March.

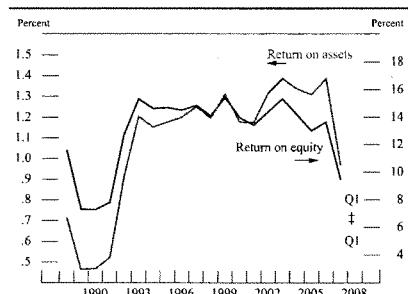
Over recent days, the share prices of Fannie Mae and Freddie Mac dropped sharply on investor concerns about their financial condition and capital position. The Treasury announced a legislative initiative to bolster the capital, access to liquidity, and regulatory oversight of the government-sponsored enterprises (GSEs). As a supplement to the Treasury's existing authority to lend to the GSEs, the Board of Governors established a temporary arrangement that allows the Federal Reserve to extend credit to Fannie Mae and Freddie Mac, if necessary. In establishing this arrangement, the Board exercised its authority under section 13(13) of the Federal Reserve Act. Credit under this arrangement will be extended at the primary credit rate and secured by government and federal agency securities.

number of previously committed large syndicated deals on their balance sheets. In the first quarter of 2008, C&I loans grew at a lower but still quite fast rate of 16½ percent, with part of the strength reportedly due to increased utilization of existing credit lines, the pricing of which reflected previous lending practices. In the second quarter, C&I lending moderated significantly further, a pattern consistent with reports from the April Senior Loan Officer Opinion Survey, which indicated a further tightening of credit standards and terms and

weakening of demand for C&I loans. Commercial real estate loans grew at an annual rate of about 9½ percent in the first half of 2008, only slightly slower than their pace in 2007.

After contracting sharply in the final quarter of 2007, the outstanding stock of residential mortgages at commercial banks rose 3½ percent in the first quarter, in part because of a sluggish pace of securitization. In the second quarter, however, banks' holdings of residential mortgage loans fell again, a pattern consistent

## Commercial bank profitability, 1988–2008



NOTE: The data extend through 2008:Q1. The data are annual through 2007; the final observation refers to 2008:Q1 at an annual rate.

SOURCE: Federal Financial Institutions Examination Council, Consolidated Reports of Condition and Income (Call Report).

with the ongoing weakness in the housing market and the reduced availability of mortgage credit. Growth of home equity lines of credit picked up significantly in the first half of 2008, likely because of the decline in short-term market rates to which such loans are generally tied. However, commercial banks have taken steps to limit their exposure to these loans; according to the April Senior Loan Officer Opinion Survey, a significant portion of respondents indicated that they had tightened their credit standards for approving new applications for home equity lines of credit, and a notable proportion reported that they had also firmed lending terms on existing lines, mainly in response to declines in property values. Despite the reported tightening of credit conditions in the household sector, consumer loans grew at a moderate pace in the first half of 2008.

Profitability of the commercial banking sector improved somewhat in the first quarter of 2008 but remained well below the levels seen before the summer of 2007. Many large banks received a significant boost to their first-quarter profits as a result of their stakes in Visa—the initial public offering of which occurred in March. However, continued write-downs of mortgage-related assets and leveraged loans, along with increasing loan-loss provisions, held profits down in the first quarter. Concerns about recent and potential losses have weighed heavily on bank stock prices this year. The median spread on credit default swaps on the senior debt of major banks climbed from 50 basis points at the end of 2007 to more than 100 basis points in mid-March. After declining noticeably in April and May, it returned close to the March peak in late June.

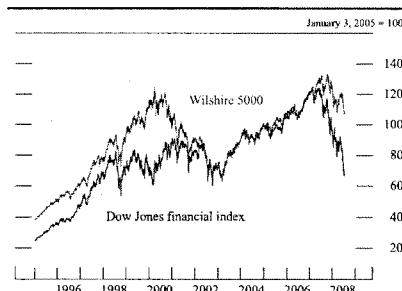
The overall delinquency rate on loans held by commercial banks rose in the first quarter to its highest level since the early 1990s, and the charge-off rate increased to the upper end of its range since 2000. The deterioration in credit quality was accounted for primarily by continued erosion in the performance of residential mortgages and a considerable worsening in construction and land development loans, but performance of most other types of loans also weakened. To bolster equity positions diminished by asset write-downs and loan-loss provisions, commercial banks raised a substantial volume of capital in the first half of 2008; some banks reduced dividends to further shore up their capital.

## Equity Markets

Overall, share prices have dropped about 15 percent from the end of 2007. The declines were led by the financial sector, especially depository institutions and broker-dealers, which fell 37 percent and 41 percent, on average, respectively. The energy and basic materials sectors avoided the downturn and have changed little on net.

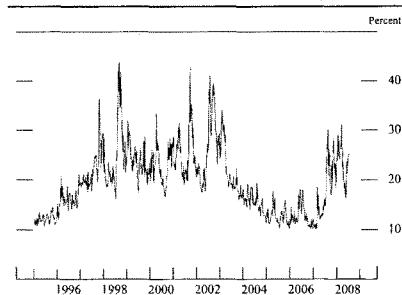
Actual and implied volatilities of broad equity price indexes shot up last year with the onset of financial strains. The partial easing of financial strains in the second quarter was associated with modest declines in the actual and implied volatilities of equity prices to levels still above those of the past few years. The 12-month-forward expected earnings-price ratio for S&P 500 firms jumped in the first half of 2008, while the long-term real Treasury yield rose only slightly. The difference between these two values—a rough measure of the premium that investors require for holding equity

## Stock price indexes, 1995–2008



NOTE: The data are daily and extend through July 9, 2008.  
SOURCE: Dow Jones Indexes.

Implied S&amp;P 500 volatility, 1995–2008



NOTE: The data are weekly and extend through the week ending July 11, 2008. The final observation is an estimate based on data through July 9, 2008. The series shown—the VIX—is the implied 30-day volatility of the S&P 500 stock price index as calculated from a weighted average of options prices.

SOURCE: Chicago Board Options Exchange.

shares—has reached the high end of its range over the past 20 years.

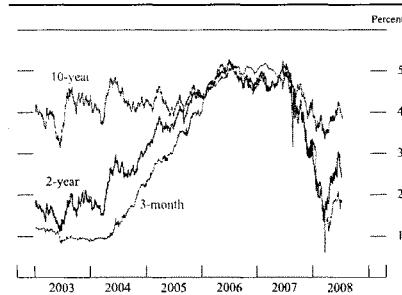
#### **Policy Expectations and Interest Rates**

The current target for the federal funds rate, at 2 percent, is substantially below the level that investors expected as of late December 2007. According to futures quotes at that time, market participants expected that the federal funds rate would be around 3½ percent by July. Looking forward, however, investors now expect that the next policy move will be up, and a small degree of tightening has been priced in by the end of 2008. Measures of uncertainty about the path of policy rose with the onset of financial turbulence last year and are currently near the high end of their range over the past 10 years.

Treasury yields fell sharply from the end of 2007 through March amid concerns about the health of financial firms, severe strains in financial markets, a weakening economic outlook, and lower expectations for future policy rates. Since late March, yields have risen across the curve as fears of a deep economic contraction have receded and concerns about the inflation outlook have increased. On net, 2-year yields are down 65 basis points, and 10-year yields are down 20 basis points since the start of the year.

Yields on Treasury inflation-protected securities largely moved in line with nominal yields—that is, they fell through mid-March and then rose—but the rise since March has been somewhat less than that of nominal yields. In addition, shifting liquidity conditions in

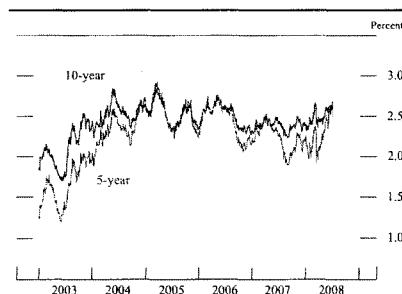
Interest rates on selected Treasury securities, 2003–08



NOTE: The data are daily and extend through July 9, 2008.  
SOURCE: Department of the Treasury.

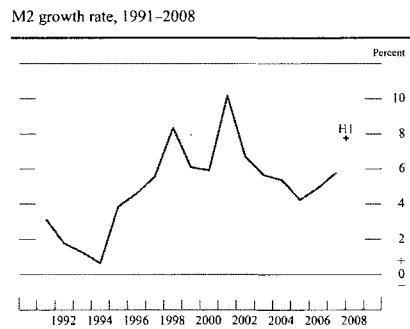
the markets for nominal and indexed Treasury securities at times affected the spreads between nominal and indexed yields, also known as inflation compensation. On net, 10-year inflation compensation has risen about 20 basis points since the end of 2007, suggesting some increase in investors' concerns about the inflation outlook. Inflation compensation rose over both the near term and the longer term, but the increase was larger over the near term, as compensation over the next 5 years rose about 30 basis points whereas compensation over the period from 5 years ahead to 10 years ahead rose only 10 basis points. In part because of a lag in the indexation of inflation-protected securities, near-term inflation compensation can be strongly affected by

TIPS-based inflation compensation, 2003–08



NOTE: The data are daily and extend through July 9, 2008. Based on a comparison of the yield curve for Treasury inflation-protected securities (TIPS) with the nominal off-the-run Treasury yield curve.

SOURCE: Federal Reserve Board calculations based on data provided by the Federal Reserve Bank of New York and Barclays.



NOTE: The data extend through 2008:Q1 and are estimated for 2008:Q2. Through 2007, the data are annual on a fourth-quarter over fourth-quarter basis; the final observation refers to 2008:Q2 relative to 2007:Q4 at an annual rate. M2 consists of currency, traveler's checks, demand deposits, other checkable deposits, savings deposits (including money market deposit accounts), small-denomination time deposits, and balances in retail money market funds.

SOURCE: Federal Reserve Board, Statistical Release H.6, "Money Stock Measures."

the latest movements in energy and food prices; these prices have risen sharply in recent months.

### Money and Reserves

M2 is estimated to have expanded at an annual rate of 7½ percent over the first half of 2008, notably faster than the likely growth rate of nominal GDP. Demand for money balances was supported by declines in the opportunity cost of holding money relative to other financial assets and by strong demand for safe and liquid assets amid volatility and strains in financial markets. Money market mutual fund shares grew particularly rapidly in the first quarter. However, growth of money market mutual funds dropped considerably in the second quarter, and small time deposits contracted; M2 slowed accordingly. Demand for currency continued to be lackluster for the most of the first half-year, but it picked up noticeably late in the second quarter as domestic demand grew and foreign demand was estimated to be less weak.

The strains in bank funding markets over recent months have posed challenges for the implementation of monetary policy. Banks generally have seemed more cautious in their activity in the federal funds market and less willing to take advantage of potential arbitrage opportunities in that market over the course of a day and across the days of a reserve maintenance period. In this environment, the Open Market Desk's decisions

regarding the appropriate quantity of reserves to be supplied each day through open market operations have been complicated, and volatility in the federal funds rate has been elevated. The authority to pay interest on reserves could be helpful to the Federal Reserve in limiting the volatility in the federal funds rate. The ability to pay interest on reserves would also allow the Federal Reserve to manage its balance sheet more efficiently in circumstances in which promoting financial stability required the provision of substantial amounts of discount window credit to the financial sector. In light of these considerations, the Federal Reserve has asked the Congress to accelerate the effective date of statutory authority to pay interest on reserve balances, which is currently October 2011.

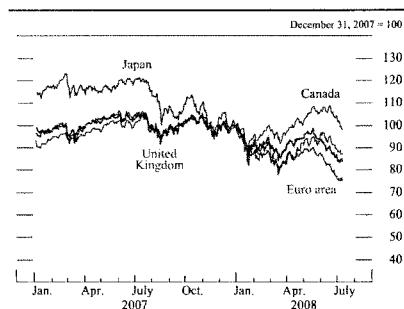
## International Developments

### International Financial Markets

Global financial markets remained distressed over the first half of 2008, primarily because of concerns about weakness in real estate and slowing global economic growth. Amid heightened market turbulence in March, the European Central Bank (ECB), Bank of England, Bank of Canada, and Swiss National Bank (SNB) announced a further set of joint actions with the Federal Reserve to help improve the functioning of short-term funding markets. The Federal Open Market Committee increased its temporary swap line to the ECB in March from \$20 billion to \$30 billion and its line to the SNB from \$4 billion to \$6 billion. In May, these amounts were increased further to \$50 billion and \$12 billion, respectively, and the lines were extended through January 2009. Meanwhile, the Bank of England and the Bank of Canada each introduced new term funding arrangements in their domestic currencies, and the Bank of England also established a facility to swap government bonds for banks' mortgage-backed securities for a term of one to three years. The ECB has also continued to offer longer-term funding in euros, auctioning three-month funds totaling €270 billion in the first quarter and €250 billion in the second quarter and adding a new long-term refinancing operation with a six-month maturity.

Market volatility has persisted in recent months, with ongoing concerns about the balance sheets of financial institutions. Since the middle of last year, European banks have announced about \$200 billion in write-downs—largely as a result of indirect exposure to U.S. credit markets through both sponsorship of and investments in structured credit products—and further

Equity indexes in selected advanced foreign economies, 2007–08

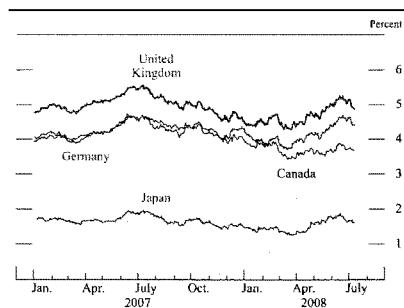


NOTE: The data are daily. The last observation for each series is July 9, 2008. Because the Tokyo Exchange was closed on December 31, 2007, the Japan index is scaled so that the December 28, 2007, closing value equals 100.

SOURCE: For euro area, Dow Jones Euro STOXX Index; for Canada, Toronto Stock Exchange 300 Composite Index; for Japan, Tokyo Stock Exchange (TOPIX); and for the United Kingdom, London Stock Exchange (FTSE 350), as reported by Bloomberg.

losses may be recognized in second-quarter financial statements. In addition, mortgage lenders in the United Kingdom have been affected by weakness in property prices there and by reduced access to capital market funding. In general, the institutions that have recognized significant losses have taken prompt steps to replenish capital from a variety of sources; more than \$140 billion had been raised by the end of June.

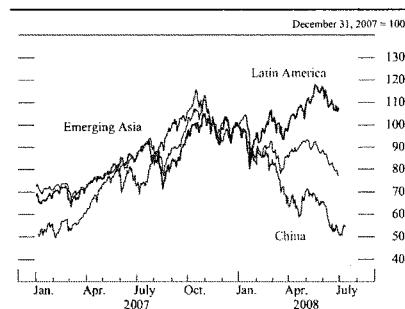
Yields on benchmark government bonds in selected advanced foreign economies, 2007–08



NOTE: The data, which are for 10-year bonds, are daily. The last observation for each series is July 9, 2008.

SOURCE: Bloomberg.

Equity indexes in selected emerging market economies, 2007–08



NOTE: The data are daily. The last observation for each series is July 9, 2008. Because the Shanghai Stock Exchange was closed on December 31, 2007, the China index is scaled so that the December 28, 2007, closing value equals 100. The Latin American economies are Argentina, Brazil, Chile, Colombia, Mexico, and Peru. The emerging Asian economies are China, India, Indonesia, Malaysia, Pakistan, the Philippines, South Korea, Taiwan, and Thailand.

SOURCE: For Latin America and emerging Asia, Morgan Stanley Capital International (MSCI) index; for China, Shanghai Composite Index, as reported by Bloomberg.

On net, most major equity indexes in the advanced foreign economies stand 12 percent to 25 percent lower in local currency terms compared with the end of 2007. European stock indexes were led lower by the stock prices of financial firms, which declined 34 percent (measured in euros); Japanese financial stocks are down 9 percent on the year. The financial turbulence has had less impact on Latin American stock prices. Equity indexes in Mexico and Brazil were virtually unchanged, on balance, over the first half of 2008. However, Chinese stock prices have tumbled 44 percent since the end of 2007, virtually erasing last year's gains, and other major emerging Asian equity indexes are also down, but to a lesser extent.

Liquidity in European government bond markets was impaired in March but seems to have improved in recent months. Long-term bond yields in the advanced foreign economies fell in the first quarter but have more than reversed these declines as investors no longer expect the ECB and the Bank of England to ease their policy rates. Since the end of 2007, long-term rates have risen, on net, 11 basis points in Germany, 38 basis points in the United Kingdom, and 12 basis points in Japan, and nominal yield curves have flattened. Meanwhile, implied long-term inflation compensation has increased 10 basis points in Japan and nearly 30 basis points in Germany and Canada.

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U.S. dollar nominal exchange rate, broad index, 2001–08

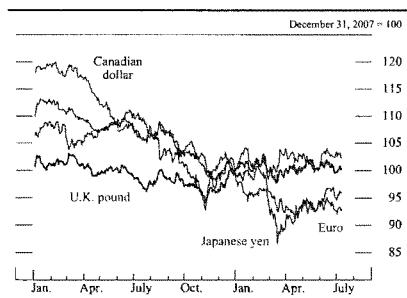


NOTE: The data, which are in foreign currency units per dollar, are daily. The last observation for the series is July 9, 2008. The broad index is a weighted average of the foreign exchange values of the U.S. dollar against the currencies of a large group of the most important U.S. trading partners. The index weights, which change over time, are derived from U.S. export shares and from U.S. and foreign import shares.

SOURCE: Federal Reserve Board.

The Federal Reserve's broadest measure of the nominal trade-weighted foreign exchange value of the dollar has declined about 3 percent, on net, since the end of last year. Over the same period, the major currencies index of the dollar has also declined about 3 percent. The dollar depreciated sharply against the euro and the yen in February and March but has recovered some in recent months. On net thus far this year, the dollar is down about 4 percent against the yen and 7 percent against the euro. The dollar is 2 percent higher against the Canadian dollar and slightly higher against sterling.

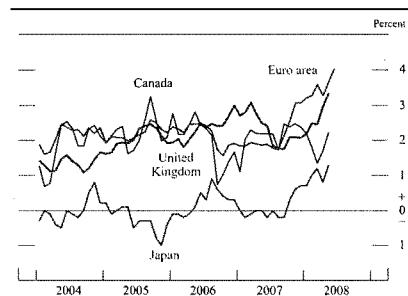
U.S. dollar exchange rate against selected major currencies, 2007–08



NOTE: The data, which are in foreign currency units per dollar, are daily. The last observation for each series is July 9, 2008.

SOURCE: Bloomberg.

Change in consumer prices for major foreign economies, 2004–08



NOTE: The data are monthly, and change is from one year earlier. The data extend through May 2008.

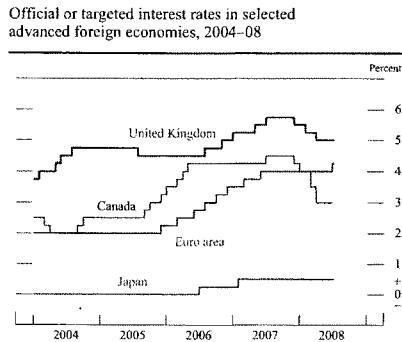
SOURCE: Haver.

The dollar has declined 6 percent against the Chinese renminbi since the end of 2007.

**Advanced Foreign Economies**

Economic growth in the major advanced foreign economies appears to have slowed somewhat this year. Although both the euro area and Japan posted strong first-quarter GDP growth rates, recent monthly indicators have been more subdued. In other countries, growth rates declined in the first quarter, and first-quarter real GDP even contracted slightly in Canada, where trade and financial ties to the United States are strong. Surveys of banks in Europe show a further tightening of credit standards in the first half of 2008 for both households and businesses. Lending to businesses appears to have remained solid, but household borrowing has slowed. Housing markets in a number of countries—including Ireland, Spain, and the United Kingdom—have continued to soften.

Since the beginning of the year, headline rates of inflation have continued to move up, on balance, in most economies, mainly because of increasing prices for food and energy. The 12-month change in consumer prices in both the euro area and the United Kingdom increased further from January to mid-2008, while core inflation rates (which exclude the changes in the prices of energy and unprocessed food) have increased much less. In Canada, where food price increases have been muted, inflation is little changed, on balance, since the beginning of the year but has risen in the past couple of months. Japanese consumer prices are roughly



NOTE: The data are daily and extend through July 9, 2008. The data shown are, for Canada, the overnight rate; for the euro area, the minimum bid rate on main refinancing operations; for Japan, the call money rate; and, for the United Kingdom, the official bank rate paid on commercial reserves.

SOURCE: The central bank of each area or country shown.

unchanged on a 12-month basis when both food and energy prices are excluded.

Over the first half of this year, the focus of the major foreign central banks appears to have shifted somewhat from the impact of financial market strains on growth to the effect of higher commodity prices on inflation. After initially lowering official interest rates, the Bank of Canada and the Bank of England have held their target rates steady since April, and the Bank of Japan has kept its policy rate unchanged at 0.5 percent all year. Recent inflation rates and statements from all of these central banks have led market participants to expect policy rates to increase slightly or to remain on hold. On July 3, the ECB raised its policy rate 25 basis points, to 4.25 percent, but it hinted that further rate hikes were not in the offing.

export growth slowed, domestic demand appears to have accelerated.

Elsewhere in emerging Asia, recent performance has varied but, on balance, indicators suggest that activity has remained solid in the region. In the first quarter, real GDP growth moderated in Korea, Malaysia, and Thailand but was strong in Hong Kong and Singapore. Exports of the region have generally slowed along with the deceleration in global economic activity; however, domestic demand strengthened in a number of countries.

Economic activity has decelerated in Latin America. In Mexico, output growth slowed to about 2 percent in the first quarter, in line with the step-down in the pace of activity in the United States that began toward the end of last year. In other Latin American countries, notably Brazil and Venezuela, growth also moderated.

Higher prices for food and energy have continued to exert upward pressures on inflation across emerging market economies. In China, headline inflation has risen, reaching roughly 8 percent in recent months. In response to the inflationary pressures, the Chinese authorities have allowed the renminbi to appreciate at a more rapid pace, and the People's Bank of China has further tightened monetary policy. The Bank has raised the required reserve ratio five times this year by a total of 300 basis points, to 17½ percent. Elsewhere in emerging market economies, 12-month headline inflation in a number of countries continued to rise in recent months, thereby prompting many central banks to tighten monetary policy. In some cases, governments also instituted export restrictions or reduced import duties for some food products. The rising cost of energy subsidies has led governments in China, India, Malaysia, Indonesia, and Taiwan to raise administered gasoline prices roughly 10 percent to 40 percent in recent months.

### *Emerging Market Economies*

Recent data suggest that real GDP growth in China remained strong in the first half of this year. Although

## Part 3

### Monetary Policy over the First Half of 2008

After easing the stance of monetary policy 100 basis points over the second half of 2007, the Federal Open Market Committee (FOMC) lowered the target federal funds rate 225 basis points further in the first half of 2008.<sup>11</sup> The Federal Reserve also took a number of additional actions to increase liquidity and to improve the functioning of financial markets.

In a conference call on January 9, the Committee reviewed recent economic data and financial market developments. The information, which included weaker-than-expected data on home sales and employment for December as well as a sharp decline in equity prices since the beginning of the year, suggested that the downside risks to growth had increased significantly since the time of the December FOMC meeting. Participants cited concerns that the slowing of economic growth could lead to a further tightening of financial conditions, which in turn could reinforce the economic slowdown. However, core inflation had edged up in recent months, and considerable uncertainty surrounded the inflation outlook. On balance, participants were

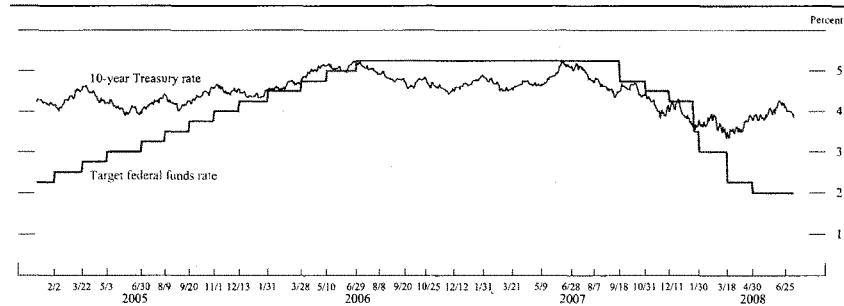
generally of the view that substantial additional policy easing might well be necessary to support economic activity and reduce the downside risks to growth, and they discussed the possible timing of such actions.

On January 21, the Committee held another conference call. Strains in some financial markets had intensified, and incoming evidence had reinforced the view that the outlook for economic activity was weak. Participants observed that investors apparently were becoming increasingly concerned about the economic outlook and downside risks to activity and that these developments could lead to an excessive pullback in credit availability. In light of these developments, all members judged that a substantial easing in policy was appropriate to foster moderate economic growth and reduce the downside risks to economic activity. The Committee decided to lower the target for the federal funds rate 75 basis points, to 3½ percent, and judged that appreciable downside risks to growth remained. Although inflation was expected to edge lower over the course of 2008, participants underscored their view that this assessment was conditioned upon inflation expectations remaining well anchored and stressed that the inflation situation should continue to be monitored carefully.

The data reviewed at the regularly scheduled FOMC meeting on January 29 and 30 confirmed a sharp decel-

<sup>11</sup> Members of the FOMC in 2008 consist of members of the Board of Governors of the Federal Reserve System plus the presidents of the Federal Reserve Banks of Cleveland, Dallas, Minneapolis, New York, and Philadelphia. Participants at FOMC meetings consist of members of the Board of Governors and all Reserve Bank presidents.

Selected interest rates, 2005–08



NOTE: The data are daily and extend through July 9, 2008. The 10-year Treasury rate is the constant-maturity yield based on the most actively traded securities. The dates on the horizontal axis are those of regularly scheduled Federal Open Market Committee meetings.

SOURCE: Department of the Treasury and the Federal Reserve.

eration in economic growth during the fourth quarter of 2007 and a continued tightening of financial conditions. With the contraction in the housing sector intensifying and a range of financial markets remaining under pressure, economic growth was expected to stay soft in the first half of 2008 before picking up strength in the second half. However, the ongoing weaknesses in home sales and house prices, as well as the tightening of credit conditions for households and businesses, were seen as posing downside risks to the near-term outlook for economic growth. Moreover, the potential for adverse feedback between the financial markets and the economy was a significant risk. Participants expressed some concern about the disappointing inflation data received over the latter part of 2007. Although many expected that a leveling-out of prices for energy and other commodities, such as that embedded in futures markets, and a period of below-trend growth would contribute to some moderation in inflation pressures over time, the Committee believed that it remained necessary to monitor inflation developments carefully. Against that backdrop, the FOMC decided to lower the target for the federal funds rate 50 basis points, to 3 percent. The Committee believed that this policy action, combined with those taken earlier, would help promote moderate growth over time and mitigate the risks to economic activity. However, members judged that downside risks to growth remained.

In a conference call on March 10, the Committee reviewed financial market developments and considered proposals aimed at supporting the liquidity and orderly functioning of those markets. In light of the sharp deterioration of some key money and credit markets, the Committee approved the establishment of the Term Securities Lending Facility, under which primary dealers would be able to borrow Treasury securities from the System Open Market Account for a term of approximately one month against any collateral eligible for open market operations and the highest-quality private residential mortgage-backed securities (MBS).<sup>12</sup> The new facility was designed to alleviate pressures in the financing markets for securities. In addition, the Committee agreed to expand the existing reciprocal currency agreements with the European Central Bank and the Swiss National Bank to \$30 billion and \$6 billion, respectively, and to extend the terms of these agreements through September 2008. Over the next few days, financial market strains intensified further. On March 16, the Federal Reserve announced emergency measures to bolster liquidity and promote orderly func-

tioning in financial markets, including the approval of the financing arrangement associated with the acquisition of The Bear Stearns Companies, Inc., by JPMorgan Chase & Co. and the establishment of the Primary Dealer Credit Facility to improve the ability of primary dealers to provide financing to participants in securitization markets. In addition, the primary credit rate was lowered 25 basis points, and the maximum term of primary credit loans was extended to 90 days.

When the Committee met on March 18, financial markets continued to be under great stress, particularly the markets for short-term collateralized and uncollateralized funding. Spreads on interbank loans and lower-rated commercial paper had widened over the inter-meeting period, and obtaining credit through repurchase agreements backed by agency and private-label MBS had become more difficult amid reports of increased margin, or "haircuts," being required by lenders. Yields on Treasury bills and repurchase agreements backed by Treasury securities had plummeted, reflecting investors' heightened demand for the safest assets.

Participants at the March 18 FOMC meeting noted that prospects for both economic activity and near-term inflation had deteriorated since January, and many thought that some contraction in economic activity in the first half of 2008 was likely. Although the economy was expected to recover in the second half and to grow further in 2009, considerable uncertainty surrounded this forecast. Some participants expressed concern that falling house prices and financial market stress might lead to a more severe and protracted downturn than anticipated. Recent readings on inflation had been elevated, and some indicators of inflation expectations had risen. However, a flattening-out of prices for oil and other commodities—as implied by futures prices—and the projected easing of pressures on resources were expected to contribute to some moderation in inflation. All in all, most members judged that a 75 basis point reduction in the target federal funds rate, to 2 1/4 percent, was appropriate to address the combination of risks of slowing economic growth, inflationary pressures, and financial market disruptions. In its statement, the Committee highlighted the further weakening in the outlook for economic activity, but it also emphasized the importance of monitoring inflation developments carefully.

The data reviewed at the meeting on April 29 and 30 indicated that economic growth had been weak in the first three months of 2008 and that core consumer price inflation had slowed, but that overall inflation had remained elevated. FOMC participants indicated that these developments had been broadly consistent with their expectations. Conditions across a number of financial markets were judged to have improved since the

12. By notation vote completed on March 20, AAA-rated commercial MBS were added to the list of acceptable collateral.

March meeting, but financial markets remained under considerable stress. Although the likelihood that economic activity would be severely disrupted by a sharp deterioration in financial markets had apparently receded, most participants thought that the risks to economic growth were still skewed to the downside. All participants expressed concern about upside risks to inflation posed by rising commodity prices and the depreciation of the dollar, but some participants noted that the downside risks to economic activity also implied that there were downside risks to price pressures as well. Participants expressed significant uncertainty concerning the appropriate stance of monetary policy in these circumstances. Some participants noted that the level of the federal funds target, especially when compared with the current rate of inflation, was relatively low by historical standards. Others noted that financial market strains and elevated risk spreads had offset much of the effects of policy easing on the cost of credit to borrowers. On balance, most members agreed that the target for the federal funds rate should be lowered 25 basis points, to 2 percent. The Committee expected that the policy easing would help to foster moderate growth over time without impeding a moderation in inflation. The Committee agreed that, in light of the substantial policy easing to date and the ongoing measures to foster financial market liquidity, the risks to growth were now more closely balanced by the risks to inflation.

In view of persisting strains in funding markets, the FOMC also approved proposals to expand the liquidity arrangements that had been put in place in previous months. The reciprocal currency agreements with the European Central Bank and Swiss National Bank were increased to \$50 billion and \$12 billion, respectively, and both were extended through January 2009. The collateral accepted by the Term Securities Lending Facility

was expanded to include all AAA-rated asset-backed securities. In addition, Chairman Bernanke announced his intention to expand the Term Auction Facility to \$150 billion under authority previously delegated by the Board of Governors.

At the time of the meeting held June 24 and 25, the available indicators suggested that economic activity in the first half of the year had not been as weak as had been expected in April. Nevertheless, several factors were viewed as likely to restrain activity in the near term, including the contraction in the housing sector, sharply higher energy prices, and continued tight credit conditions. Although financial market conditions generally appeared to have improved modestly since the April meeting, participants noted that the potential for adverse financial market developments still posed significant downside risks to economic activity. The further large increase in energy prices also prompted an upward revision of projections for overall inflation in the second half of 2008. Most participants expected that a leveling-out of energy prices and continued slack in resource utilization would lead inflation to moderate in 2009 and 2010, but the persistent tendency in recent years for commodity prices to exceed the trajectory implied by futures market prices engendered considerable uncertainty around the projected moderation of inflation. Members generally agreed that the downside risks to growth had eased somewhat since the previous FOMC meeting while the upside risks to inflation had intensified. Against this backdrop, most members judged that maintaining the current stance of policy at this meeting represented an appropriate balancing of the risks to the economic outlook. Nonetheless, policymakers recognized that circumstances could change quickly and noted that they might need to respond promptly to incoming information about the evolution of risks.

## Part 4

### Summary of Economic Projections

*The following material appears as an addendum to the minutes of the June 24–25, 2008, meeting of the Federal Open Market Committee.*

In conjunction with the June 2008 FOMC meeting, the members of the Board of Governors and the presidents of the Federal Reserve Banks, all of whom participate in deliberations of the FOMC, provided projections for economic growth, unemployment, and inflation in 2008, 2009, and 2010. Projections were based on information available through the conclusion of the June meeting, on each participant's assumptions regarding a range of factors likely to affect economic outcomes, and on his or her assessment of appropriate monetary policy. "Appropriate monetary policy" is defined as the future policy that, based on current information, is deemed most likely to foster outcomes for economic activity and inflation that best satisfy the participant's interpretation of the Federal Reserve's dual objectives of maximum employment and price stability.

FOMC participants generally expected that, over the remainder of this year, output would expand at a pace appreciably below its trend rate, owing primarily to continued weakness in housing markets, the substantial rise in energy prices in recent months, and the reduction in the availability of household and business credit resulting from continued strains in financial markets. As indicated in table 1 and figure 1, output growth further ahead was projected to pick up sufficiently to begin to reverse some of the increase in the unemployment rate by 2010. In light of the recent surge in the prices of oil and agricultural commodities, total inflation was expected to rise further in coming months and to be elevated for 2008 as a whole. However, many participants expected that persistent economic slack and a flattening out of energy and other commodity prices in line with futures market prices would cause overall inflation to decline noticeably in 2009 and 2010. Most participants judged that greater-than-normal uncertainty surrounded their projections for both output growth and inflation. A significant majority of participants viewed the risks to their forecasts for output growth as weighted to the downside, and a similar number saw the risks to the inflation outlook as skewed to the upside.

Table 1. Economic projections of Federal Reserve Governors and Reserve Bank presidents, June 2008

Percent	Variable	2008	2009	2010
Central tendency <sup>1</sup>				
Change in real GDP .....	1.0 to 1.6	2.0 to 2.8	2.5 to 3.0	
April projection .....	0.3 to 1.2	2.0 to 2.8	2.6 to 3.1	
Unemployment rate.....	5.5 to 5.7	5.3 to 5.8	5.0 to 5.6	
April projection .....	5.5 to 5.7	5.2 to 5.7	4.9 to 5.5	
PCE inflation.....	3.8 to 4.2	2.0 to 2.3	1.8 to 2.0	
April projection .....	3.1 to 3.4	1.9 to 2.3	1.8 to 2.0	
Core PCE inflation.....	2.2 to 2.4	2.0 to 2.2	1.8 to 2.0	
April projection .....	2.2 to 2.4	1.9 to 2.1	1.7 to 1.9	
Range <sup>2</sup>				
Change in real GDP .....	0.9 to 1.8	1.9 to 3.0	2.0 to 3.5	
April projection .....	0.0 to 1.5	1.8 to 3.0	2.0 to 3.4	
Unemployment rate.....	5.5 to 5.8	5.2 to 6.1	5.0 to 5.8	
April projection .....	5.3 to 6.0	5.2 to 6.3	4.8 to 5.9	
PCE inflation.....	3.4 to 4.6	1.7 to 3.1	1.5 to 2.1	
April projection .....	2.8 to 3.8	1.7 to 3.0	1.5 to 2.0	
Core PCE inflation.....	2.0 to 2.5	1.8 to 2.3	1.5 to 2.0	
April projection .....	1.9 to 2.5	1.7 to 2.2	1.3 to 2.0	

NOTE: Projections of change in real gross domestic product (GDP) and of inflation are from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation and core PCE inflation are the percentage rates of change in, respectively, the price index for personal consumption expenditures (PCE) and the price index for PCE excluding food and energy. Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated. Each participant's projections are based on his or her assessment of appropriate monetary policy.

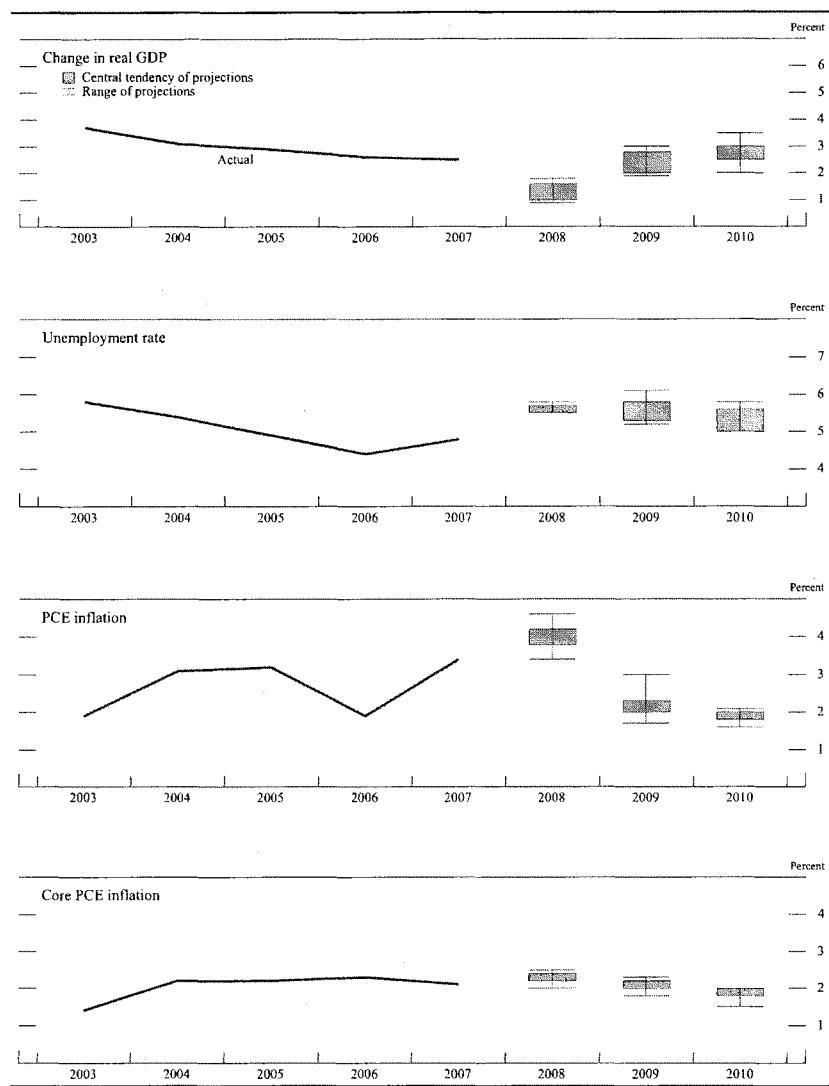
1. The central tendency excludes the three highest and three lowest projections for each variable in each year.

2. The range for a variable in a given year includes all participants' projections, from lowest to highest, for that variable in that year.

#### The Outlook

The central tendency of participants' projections for real GDP growth in 2008, at 1.0 percent to 1.6 percent, was noticeably higher than the central tendency of the projections provided in conjunction with the April FOMC meeting, which was 0.3 percent to 1.2 percent. The upward revision to the 2008 outlook stemmed primarily from better-than-expected data on consumer and business spending received between the April and June FOMC meetings. Nonetheless, several participants noted that the recent firmness in consumer spending could well prove transitory and that the ongoing housing market correction, tight credit conditions, and elevated energy prices would damp domestic demand in the second half of this year. Still, the substantial eas-

Figure 1. Central tendencies and ranges of economic projections, 2008–10



NOTE: Definitions of variables are in the notes to table I. The data for the actual values of the variables are annual.

ing of monetary policy since last year and the continued strength in exports should help to support economic growth; in addition, strains had eased somewhat in some financial markets since April. Real GDP growth was expected to increase in 2009 as the adjustment in the housing sector ran its course, financial markets gradually resumed more-normal functioning, and the downward pressure on real incomes stemming from increases in energy and food prices in the first half of 2008 began to fade. In 2010, economic activity was projected to expand at or a little above participants' estimates of the rate of trend growth.

With output growth continuing to run below trend in the second half of 2008, most participants expected that the unemployment rate would move up somewhat over the remainder of this year. The central tendency of participants' projections for the average rate of unemployment in the fourth quarter of 2008 was 5.5 percent to 5.7 percent, unchanged from the central tendency of projections that were provided in conjunction with the April FOMC meeting and consistent with some slack in resource utilization. The central tendency of participants' projections was for the unemployment rate to stabilize in 2009 and to edge down in 2010 as output and employment growth pick up.

The surge in the prices of oil and agricultural commodities since April led participants to revise up noticeably their projections for total inflation in the near term. However, the central tendency of participants' projections for core PCE inflation in 2008 was 2.2 percent to 2.4 percent, unchanged from the central tendency in April, as lower-than-expected rates of core inflation over recent months offset the expectations of some pass-through of the recent surge in energy prices into core inflation over the next few months. Rates of both overall and core inflation were expected to decline over the next two years, reflecting a flattening out of the prices of oil and other commodities consistent with futures market prices, slack in resource utilization, and longer-term inflation expectations that were expected to remain generally well anchored.

The contour of participants' projections for output growth, unemployment, and inflation was importantly shaped by their judgments about the measured rates of inflation consistent with the Federal Reserve's dual mandate to promote maximum employment and price stability and about the time horizon over which policy should aim to attain those rates given current economic conditions. Most participants judged that it might take a substantial period of time for output and inflation to recover from the recent shocks, which had elevated inflation and damped economic activity. A number of participants projected that the rate of unemployment

might remain slightly above its longer-run sustainable level even in 2010; total inflation in 2010 was also judged likely to continue to run a bit above levels that most participants saw as consistent with the price stability objective of the Federal Reserve's dual mandate. Most participants saw further declines in both unemployment and inflation as likely in the period beyond the forecast horizon. (See table 1 on page 39 and figure 1 on page 40).

### Risks to the Outlook

Most participants viewed the risks to their projections for GDP growth as weighted to the downside and the associated risks to their projections for the unemployment rate as tilted to the upside. The possibility that house prices could decline more steeply than anticipated, further reducing households' wealth, restricting their access to credit, and eroding the capital of lending institutions, continued to be perceived as a significant downside risk to the outlook for economic growth. Although financial markets had shown some further improvement since April, conditions in those markets remained strained; a number of participants also pointed to the risk that further improvement could be quite slow and subject to relapse. The potential for current tight credit conditions to exert an unexpectedly large restraint on household and business spending was also viewed as a significant downside risk to economic activity. An adverse feedback loop, in which weaker economic activity led to a further worsening of financial conditions, which in turn could damp economic growth even further, continued to be viewed as a worrisome possibility, though less so than in April. Indeed, some participants pointed to the apparent resilience of the U.S. economy in the face of recent financial distress and suggested that the adverse effects of financial developments on economic activity outside of the housing sector could prove to be more modest than anticipated.

Most participants viewed the risks to their inflation projections as weighted to the upside. Recent sharp increases in energy and food prices and the pass-through of dollar depreciation into import prices could boost inflation in the near term by more than currently anticipated. Although participants generally assumed that commodity prices will flatten out, roughly in line with the trajectory implied by futures prices, the fact that futures markets had persistently underpredicted commodity prices in recent experience was viewed as an upside risk to the outlook for inflation. Participants also saw a risk that inflation expectations could become less firmly anchored, particularly if the current elevated

rates of headline inflation did not moderate as quickly as they expected.

Participants continued to view uncertainty about the outlook for economic activity as higher than normal, with a number pointing to uncertainty about the duration and effects of the ongoing financial strains on real activity. In addition, participants expressed noticeably more uncertainty about their inflation projections than they had in January and April, a shift in perception that they attributed importantly to increased uncertainty about the future course of energy and food prices and to greater uncertainty about the extent of pass-through of changes in those prices into core inflation. (Table 2 provides estimates of forecast uncertainty for real GDP growth, unemployment, and inflation since 1987.<sup>13</sup>)

### Diversity of Participants' Views

Figures 2.A and 2.B provide more detail on the diversity of participants' views regarding likely economic outcomes over the projection period. The dispersion of participants' projections for real GDP growth in 2008 was noticeably narrower than in the forecasts provided in April, reflecting primarily the accumulation of data about the actual performance of the economy in the first half of the year; their views about output growth in coming quarters and in 2009 continued to exhibit appreciable dispersion. The dispersion of participants' projections for real activity next year seemed largely to reflect differing assessments of the effects of adverse financial market conditions on economic growth, the speed with which credit conditions might improve, and the depth and duration of the correction in the housing market. Indeed, views differed notably on the pace at

13. The box "Forecast Uncertainty" at the end of this summary discusses the sources and interpretation of uncertainty in economic forecasts and explains the approach used to assess the uncertainty and risks attending participants' projections.

**Table 2. Average historical projection error ranges  
Percentage points**

Variable	2008	2009	2010
Change in real GDP <sup>1</sup> .....	±0.9	±1.3	±1.4
Unemployment rate <sup>2</sup> .....	±0.3	±0.7	±1.0
Total consumer prices <sup>3</sup> .....	±0.6	±1.0	±1.0

NOTE: Error ranges shown are measured as plus or minus the root mean squared error of projections that were released in the summer from 1987 through 2007 for the current and following two years by various private and government forecasters. As described in the box "Forecast Uncertainty," under certain assumptions, there is about a 70 percent probability that actual outcomes for real GDP, unemployment, and consumer prices will be in ranges implied by the average size of projection errors made in the past. Further information is in David Reischneider and Peter Tulip (2007), "Gauging the Uncertainty of the Economic Outlook from Historical Forecasting Errors," Finance and Economics Discussion Series 2007-60 (Board of Governors of the Federal Reserve System, November).

1. For definitions, refer to general note in table 1.

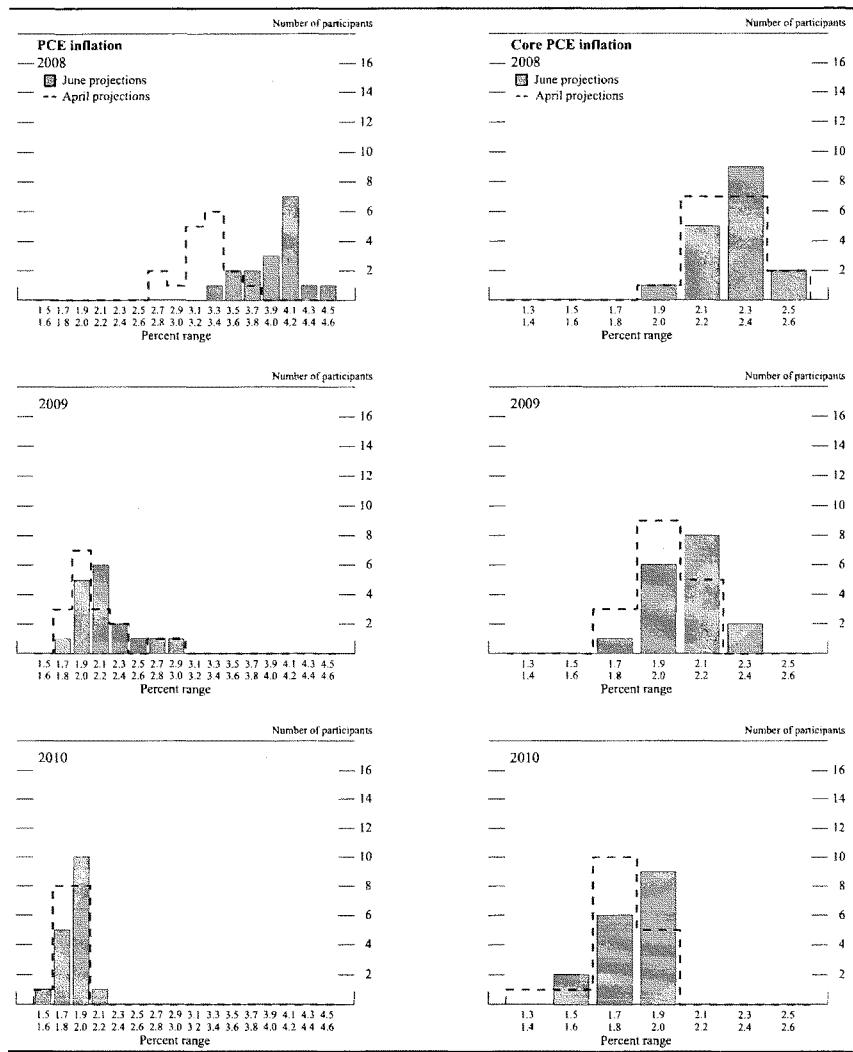
2. Measure is the overall consumer price index, the price measure that has been most widely used in government and private economic forecasts. Projection is percent change, fourth quarter of the previous year to the fourth quarter of the year indicated.

which output and employment would recover in 2009, with some participants expressing a concern that growth might be constrained by the persistence of financial strains over a considerable period. The dispersion of participants' longer-term projections was also affected to some degree by differences in their judgments about the economy's trend growth rate and the unemployment rate that would be consistent over time with maximum employment. The dispersion of the projections for PCE inflation in the near term reflected in large part differing views on the extent to which recent increases in energy and food prices would pass through into higher consumer prices. In addition, participants held differing views on the degree to which inflation expectations were anchored and the role that expectations might play in the inflation process over the short and medium term. Participants' inflation projections further ahead were shaped by the views of the rate of inflation consistent with the Federal Reserve's dual objectives and the time it would take to achieve these goals given current economic conditions and appropriate policy.

Figure 2.A. Distribution of participants' projections for the change in real GDP and for the unemployment rate, 2008–10



Figure 2.B. Distribution of participants' projections for PCE inflation and for core PCE inflation, 2008–10



NOTE: Definitions of variables are in the general note to table 1.

### Forecast Uncertainty

The economic projections provided by the members of the Board of Governors and the presidents of the Federal Reserve Banks inform discussions of monetary policy among policymakers and can aid public understanding of the basis for policy actions. Considerable uncertainty attends these projections, however. The economic and statistical models and relationships used to help produce economic forecasts are necessarily imperfect descriptions of the real world. And the future path of the economy can be affected by myriad unforeseen developments and events. Thus, in setting the stance of monetary policy, participants consider not only what appears to be the most likely economic outcome as embodied in their projections, but also the range of alternative possibilities, the likelihood of their occurring, and the potential costs to the economy should they occur.

Table 2 (see page 42) summarizes the average historical accuracy of a range of forecasts, including those reported in past Monetary Policy Reports and those prepared by Federal Reserve Board staff in advance of meetings of the Federal Open Market Committee. The projection error ranges shown in the table illustrate the considerable uncertainty associated with economic forecasts. For example, suppose a participant projects that real gross domestic product (GDP) and total consumer prices will rise steadily at annual rates of, respectively, 3 percent and 2 percent. If the uncertainty attending those

projections is similar to that experienced in the past and the risks around the projections are broadly balanced, the numbers reported in table 2 would imply a probability of about 70 percent that actual GDP would expand 2.1 percent to 3.9 percent in the current year, 1.7 percent to 4.3 percent in the second year, and 1.6 percent to 4.4 percent in the third year. The corresponding 70 percent confidence intervals for overall inflation would be 1.4 percent to 2.6 percent in the current year and 1.0 percent to 3.0 percent in the second and third years.

Because current conditions may differ from those that prevailed on average over history, participants provide judgments as to whether the uncertainty attached to their projections of each variable is greater than, smaller than, or broadly similar to typical levels of forecast uncertainty in the past as shown in table 2. Participants also provide judgments as to whether the risks to their projections are weighted to the upside, downside, or are broadly balanced. That is, participants judge whether each variable is more likely to be above or below their projections of the most likely outcome. These judgments about the uncertainty and the risks attending each participant's projections are distinct from the diversity of participants' views about the most likely outcomes. Forecast uncertainty is concerned with the risks associated with a particular projection, rather than with divergences across a number of different projections.

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BOARD OF GOVERNORS  
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**FEDERAL RESERVE SYSTEM**  
WASHINGTON, D. C. 20551

BEN S. BERNANKE  
CHAIRMAN

August 25, 2008

The Honorable J. Gresham Barrett  
House of Representatives  
Washington, D.C. 20515

Dear Congressman:

I am pleased to enclose my responses to the questions you submitted following the hearing on July 16 before the Committee on Financial Services. A copy has also been forwarded to the Committee for inclusion in the hearing record.

Please let me know if I can be of further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Bernanke".

Enclosure

Chairman Bernanke subsequently submitted the following in response to written questions received from Congressman Barrett in connection with the hearings before the House Financial Services Committee on July 16, 2008:

**Many analysts have compared our current economy with economic climates of the past. What are the important similarities between our current economic climate and past economic troubles? What lessons should we take from those similar past economic disruptions that we should apply to this discussion given the skyrocketing price of oil and other commodities, an enormous budget deficit and a weakening dollar?**

For some analysts, today's rapidly rising energy prices recall the "stagflation" of the 1970s. However, there are some important differences between that period and today's economy. Although rising prices of crude oil have, as in the 1970s, put downward pressure on economic growth and upward pressure on inflation, the U.S. economy is much less energy intensive today, which has likely diminished the effects of higher oil prices relative to that earlier episode. In addition, the public's expectation that inflation beyond the near term will be little affected by recent energy price increases has thus far helped to limit the current shock's inflationary effect. Among the lessons that can be drawn from a comparison of these episodes is that a Central Bank's commitment to price stability--by anchoring expectations of future inflation--can help to contain the inflationary effect of oil shocks. In this context, it will be important to ensure that the current elevated level of total inflation does not lead to upward pressure on longer-term inflation expectations. As a result, the Federal Open Market Committee is monitoring inflation and inflation expectations very carefully.

The current housing market downturn and financial market disruptions also bear some similarities to earlier periods of financial market stress, such as occurred during the early 1990s. However, the current disruptions are greater in magnitude and scope, affecting a broader array of institutions and markets than in the past. Among the important lessons from earlier episodes of financial stress is that policymakers should strive to contain the economic fallout from such episodes, in part by promoting a return to more normal functioning financial markets. In addition, it is clear from the current and earlier episodes of financial stress that balanced financial market regulation--allowing the pursuit of important innovation but at the same time preventing excessive risk taking--is fundamental to economic growth and stability.

**Does the size of the United States' budget deficit change the available range of policy options?**

Fiscal policy can, in principle, be a valuable tool to help combat periods of economic weakness. However, policy must be designed in a way that will maintain fiscal sustainability over time. In this sense, the size of recent budget deficits and the current level of federal debt may limit the set of current and future fiscal policies that are sustainable in the long-run.

**Do you foresee any danger foreign lenders and investors will lose confidence in the U.S. economy or in the United States' creditworthiness?**

Despite recent volatility, the U.S. financial system is still pre-eminent in its depth, breadth, and safety, and there is little indication that foreign lenders and investors are losing confidence in the U.S. economy or that foreign perceptions of U.S. creditworthiness are deteriorating. As evidenced by data on international capital flows and international investment positions, foreign investors--both official and private--continue to increase the scale of their investments in the United States, and U.S. assets still occupy the predominant share of foreign external portfolios. Prudent economic policies, including those that maintain the openness of our markets and allow the free flow of international capital to seek its most efficient uses, will help maintain that attractiveness going forward.

**At the same time, American consumers seem to be following their government's lead and borrowing increasingly large amounts of money, which in turn has helped fuel economic growth. Do you foresee a problem arising from the large amounts of debt that consumers have amassed? Given that both consumers and financial institutions are saddled with large amounts of debt, what kind of economic growth can be expected? Do you think that there is an over reliance on US domestic consumption to fuel economic growth? What can be done to spur economic recovery and organic growth without increasing consumer debt?**

Our nation's large magnitude of debt, both public and private, reflects an excess of consumption over saving that, in the aggregate, is mirrored in our current account deficit. The eventual need to reduce the magnitude of that deficit implies that, over time, our nation will require a significant increase in public and private saving. Reductions in the federal budget deficit must be one important component of this increase in national saving. But, given the large share of consumer spending in GDP, increases in private household saving will also likely be an important component.

When equity and home prices were rising rapidly in previous years and boosting households' net worth, many individuals felt comfortable increasing their spending by more than the growth in their incomes even if that meant incurring additional debt; accordingly, the personal saving rate moved lower over this period. Given the declines in house prices and equity prices over the past year, as well as the greater reluctance of financial institutions to extend credit to households, it seems likely that consumer spending will slow in the period ahead, limiting the growth of consumer debt. This slowing will weigh on economic growth for a time as well. However, increasing our national saving rate can help to lower interest rates, increase domestic investment, and reduce our reliance on borrowing from abroad, all of which will help to promote economic growth over the longer term. For our part, maintaining a monetary policy that promotes price stability and maximum sustainable employment, and that fosters the soundness of the financial system, is the best way for the Federal Reserve to contribute to general economic welfare.

**Do you think that there has been a fundamental change in the monetary value of consumer and corporate debt? Or has some of the financial crisis that we have been facing stem from panic rather than a rational assessment of the economic fundamentals underlying the housing market and mortgage backed securities?**

Over the past several quarters, there has been a deterioration in the performance of a range of loans to households and businesses in the United States. Delinquency and foreclosure rates for residential mortgages have risen significantly, and by more than expected, prompting a sizable rise in risk spreads on securities exposed to mortgage-related credit risk. Issuance of private-label mortgage-backed securities has virtually halted. In addition, commercial banks and thrifts have generally reported increased charge-off rates on other mortgage-related and consumer loans, and a modest increase for C&I loans. As loan performance has deteriorated, banks have, on balance, reported tightening their lending standards and terms for many types of loans. In the corporate bond market, defaults have remained low, but risk spreads on corporate bonds have risen appreciably over the past year, reflecting in part expected increased losses from future defaults in light of the slowdown in economic activity.

The observed increase in risk spreads for a range of securities appears to reflect a deterioration in credit fundamentals and demand by investors for greater compensation for bearing risk, as is typical in such times. In addition, the higher risk spreads likely reflect compensation for the uncertainty of the effects of sharply tighter lending standards and a pullback from some structured financial products.

**Do you think that the tax code creates enough incentives for saving and would creating new incentives to save earlier in life be helpful for increasing the American savings rate?**

I share your concerns about our nation's low saving rate, which has trended down over the past two decades despite numerous policies implemented to try to increase household savings. IRAs and 401(k) plans, along with other types of tax-preferred saving vehicles, generally have been popular. However, despite their popularity, much of the evidence suggests that tax-preferred savings plans tend to substitute for other forms of household savings and have done little to boost total net saving. Greater net saving by households requires them to spend less, holding incomes the same. But, reducing spending is not easy, especially for lower-income and many younger households.

That said, we should continue to look for policies that would help bolster the U.S. saving rate. In this regard, the Pension Protection Act of 2006 contained a provision to encourage employers to automatically enroll employees in their 401(k) plans by default, but allow them to opt out if they do not want to participate. Several studies have shown that automatic enrollment plans have increased the percentage of employees that participate in their 401(k) plan and also have increased total contributions amounts. Although these studies have yet to assess whether these contributions represent net new saving, if this automatic enrollment policy ultimately proves to be effective in encouraging individuals to save more, it may also provide some guidance in developing other policies that induce more people to start saving earlier in life.

**Right now, the issue that lies heaviest on all my constituents' minds is the high price of energy, especially gasoline. Without major structural changes, can the American economy continue to grow with oil above \$140 a barrel and gasoline above \$4.50 a gallon? How much have high energy prices impeded American economic growth? What might a growth pattern for the American economy look like with sustained high commodity prices?**

Since my testimony in July, the spot price of a barrel of oil has dropped from over \$140 per barrel to under \$120 per barrel. Even with this drop, the rise from roughly \$65 per barrel in 2006 has been considerable. By reducing the purchasing power of households and the profitability of many businesses, higher oil prices restrain both consumer spending and business investment. Although imprecise, a reasonable estimate of the negative effect of the rise in oil prices since 2006 on real GDP growth might be around 1/4 percentage point both last year and this year. If prices for crude oil and other commodity prices remain at their current levels, the effect on GDP growth after this year should be small. However, some small adverse effect on growth could persist into the future, as businesses adjust the size and composition of their capital stocks in light of energy and commodity costs that are higher than they originally expected.

**My colleagues and I are concerned about the strategic geopolitical realities generated by our dependence on foreign oil. What are the financial and macroeconomic effects of our dependence on foreign oil? How important is energy independence to the long-term health of the economy?**

The long-term health of our economy will depend, as it has in the past, on the caliber of our labor force, the condition of our capital equipment and structures, the pace of technological advancement, and the availability of dependable sources of energy. At present, about two-thirds of the oil used in the United States is imported. With much of the world's oil reserves located in potentially unstable regions, this dependence on imported oil exposes us to disruptions in the oil market from around the globe. Moreover, rising oil prices have boosted our oil import bill, thereby widening our trade deficit and contributing to an increase in our external indebtedness.

It is not the case, however, that we would be better off if we artificially limit our access to the bulk of the world's sources of oil. Energy is a fundamental input into economic activity, and reducing its availability would only serve to diminish productivity and impair living standards. In addition, as oil is highly tradable, disruptions to supply in any particular country lead to increases in prices in all countries, so it is not the case that lower imports by themselves would lead to less price volatility. Indeed, less scope for trade may have the opposite effect.

Nonetheless, there may be good reasons to reduce our reliance on oil, including geopolitical considerations and environmental concerns. The best way to reduce the vulnerability that stems from our reliance on oil supplies from abroad is through greater diversification of energy supply, in terms of both the types of energy that are available and the locations from which we obtain it. On the demand side, conservation should play an important role as well. Technological advancements and the opportunities afforded by international trade will likely play an important role in this process.



BOARD OF GOVERNORS  
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WASHINGTON, D.C. 20551

BEN S. BERNANKE  
CHAIRMAN

August 20, 2008

The Honorable John Campbell  
House of Representatives  
Washington, D.C. 20515

Dear Congressman:

Thank you for your letter of August 11, 2008, in which you submitted additional questions in connection with the July 16 hearing before the House Financial Services Committee. The questions, regarding measures of expected inflation, are as follows:

- Given your comments and the recently released June inflation numbers, could you please describe how the Federal Reserve measures and determines long-term inflation expectations and whether or not they are becoming embedded in the domestic wage- and price-setting processes?
- Also, could you then describe how these long-term inflation calculations are used to predict growth and inflation in future periods?

We obtain evidence on long-term inflation expectations from a variety of sources. For example, we monitor surveys of households, the most prominent of which is conducted by Reuters and the University of Michigan, in which individuals are asked how much they expect prices to increase over the next year and their expectations of price inflation over the next five to ten years. We also follow surveys of the inflation projections of professional economic forecasters. Finally, the difference between yields on nominal Treasury securities and on the Treasury's inflation-indexed securities provides a measure of the inflation compensation required by investors. This measure reflects investors' expectations of price inflation as measured by the CPI as well as investors' degree of aversion to inflation risk and the different liquidity characteristics of the securities.

Since early this year, the survey measures have pointed to a small increase in long-term inflation expectations, while measures derived from Treasury securities have been little changed on net. Moreover, to date, measures of hourly labor compensation

The Honorable John Campbell  
Page Two

have been increasing moderately and do not provide much evidence that higher rates of price inflation are becoming embedded in inflation expectations and, through those expectations, in the wage and price setting process. As I said in my testimony, the FOMC will remain alert to indications that the inflationary impulses from the earlier run up in commodity prices are leading to an erosion in inflation expectations that could risk compromising our goals of achieving price stability and maximum sustainable employment.

Please let me know if I can be of further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "John Campbell".

JOHN CAMPBELL  
48TH DISTRICT, CALIFORNIA  
COMMITTEE ON BUDGET  
COMMITTEE ON FINANCIAL SERVICES  
REPUBLICAN STUDY COMMITTEE  
BUDGET AND SPENDING TASK FORCE  
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## Congress of the United States

### House of Representatives

Washington, DC 20515-0548

August 11, 2008

The Honorable Ben Bernanke  
Chairman  
Board of Governors  
Of the Federal Reserve System  
20<sup>th</sup> Street and Constitution Avenue, NW  
Washington, DC 20551

Dear Chairman Bernanke,

I was glad to be in attendance and hear you testify before the House Financial Services Committee during the Humphrey Hawkins hearing on July 16<sup>th</sup>, 2008. Unfortunately, due to time constraints, I was unable to ask a question. In response, I would like to submit a written question pertaining to your testimony given at the hearing. Any light you can shed on the subject is greatly appreciated.

Chairman Bernanke, in your testimony before the House Financial Services Committee on July 16<sup>th</sup>, 2008, you said:

*"However, in light of the increased persistent escalation of commodity prices in recent quarters, FOMC participants viewed the inflation outlook as unusually uncertain and cited the possibility that commodity prices will continue to rise as an important risk to the inflation forecast."*

*"Moreover, the currently high level of inflation, if sustained, might lead the public to revise up its expectations for longer-term inflation. If that were to occur, and those revised expectations were to become embedded in the domestic wage- and price-setting process, we could see an unwelcome rise in actual inflation over the longer term. A critical responsibility of monetary policy-makers is to prevent that process from taking hold..."*

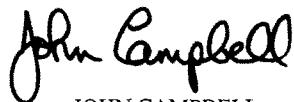
*"...Given the high degree of uncertainty, monetary policy-makers will need to carefully assess incoming information bearing on the outlook for both inflation and growth."*

*"In light of the increase in upside inflation risk, we must be particularly alert to any indications – such as an erosion of longer-term inflation expectations – that the inflationary impulses from commodity prices are becoming embedded in the domestic wage- and price-setting process."*

- Given your comments and the recently released June inflation numbers, could you please describe how the Federal Reserve measures and determines long-term inflation expectations and whether or not they are becoming embedded in the domestic wage- and price-setting processes?
- Also, could you then describe how these long-term inflation calculations are then used to predict growth and inflation in future periods?

Thank you for your attention to this matter and I look forward to your response.

I remain respectfully,



JOHN CAMPBELL  
Member of Congress



BOARD OF GOVERNORS  
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**FEDERAL RESERVE SYSTEM**  
WASHINGTON, D. C. 20551

BEN S. BERNANKE  
CHAIRMAN

August 25, 2008

The Honorable Adam Putnam  
House of Representatives  
Washington, D.C. 20515

Dear Congressman:

I am pleased to enclose my responses to the questions you submitted following the hearing on July 16 before the Committee on Financial Services. A copy has also been forwarded to the Committee for inclusion in the hearing record.

Please let me know if I can be of further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Bernanke".

Enclosure

Chairman Bernanke subsequently submitted the following in response to written questions received from Congressman Putnam in connection with the hearings before the House Financial Services Committee on July 16, 2008:

**1. Are you satisfied with the joint action that you and Secretary Paulson took this weekend? Specifically, do you believe it had the desired stabilizing effect?**

The actions taken by the Department of the Treasury and the Federal Reserve Board helped reassure market participants that two government-sponsored entities, the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac), would have sufficient liquidity to meet their obligations and to continue to perform their important roles in the mortgage markets. The subsequent action by the Congress in passing GSE reform legislation further reassured market participants that the GSEs would meet all senior debt and MBS obligations.

**2. What are the ramifications if Congress fails to bless the deal?**

Congress has passed GSE reform legislation and thus I will not speculate about what might have happened if it did not.

**3. Yesterday the President said, “there is an implicit government guarantee” of Fannie and Freddie. What are the long term consequences of maintaining such a guarantee?**

The financial markets have long perceived that the GSEs have an implicit government guarantee. The recent actions by the government have only strengthened this belief. The long term consequence of such a persistent belief is moral hazard, which means that market participants, as well as GSE managements, may not adequately monitor the GSEs' financial performance because these participants believe the government will bail them out if the GSEs cannot honor their commitments. To offset these concerns about moral hazard, the new GSE regulator needs to be sure that the GSEs have a strong capital position and that their portfolios of investments assets are managed in a very conservative manner in order to avoid systemic risks.

**4. The current legislation creates a Federal Housing Enterprise Board that would include the Secretary of HUD and the Secretary of Treasury – the Senate would also include the Chairman of the SEC. The Board would advise the Director of the Federal Housing Finance Agency on overall strategies and policies. This weekend’s proposal called for the Fed to have a consultative role in the new GSE regulator’s process for setting capital requirements and other prudential standards. First, is the Board unable to do this as it is currently proposed in the legislation? Second, do you believe that the Fed should be included on the Board? Finally, do you believe that if the Fed were to have a consulting role that this would lessen the powers of the new regulator or negate the efforts of the Board?**

The Congress has determined that the Federal Reserve Board will have a consulting relationship with the GSE regulator during the next 18 months. We will strive to do our best in undertaking the responsibilities given to us in the recently passed housing legislation (the Housing and Economic Recovery Act of 2008).

